DOCUMENT RESUME

ED 123 867 EC 090 258

AUTHOR Verhoven, Peter J.; Goldstein, Judith E.
TITLE Leisure Activity Participation and Handicapped Populations: An Assessment of Research Needs.
INSTITUTION National Recreation and Park Association, Arlington, Va.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
PUB DATE Apr 76
CONTRACT OEC-0-74-8734
NOTE 139p.

EDRS PRICE MF-$0.83 HC-$7.35 Plus Postage.
DESCRIPTORS *Conference Reports; Counseling; Discriminatory Attitudes (Social); Exceptional Child Services; *Handicapped Children; *Leisure Time; Recreation; Research Methodology; *Research Needs

ABSTRACT

Presented is a report of a conference on research needs in the area of leisure time activity for handicapped persons. Reviewed are the initial conference concept and its evaluation into five categories of concern (leisure concepts, attitudinal barriers, activity analysis, design/adaptation considerations, and education/counseling). Discussed are the following research and demonstration priority areas: social psychology of leisure; barriers to acquisition and maintenance of skills; activity analysis, selection, and programming, dissemination and utilization; and service delivery. Considered is the facet model of research. Strategies to enhance leisure participation by handicapped persons are recommended for the five priority areas. The bulk of the document is comprised of four appendixes, containing five state of the art presentations and reactor panel comments on the five research priority areas, and a list of conference participants. (CL)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED123867

EC090258

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

LEISURE ACTIVITY PARTICIPATION AND HANDICAPPED POPULATIONS:

An Assessment of Research Needs

Peter J. Verhoven
Project Director

Judith E. Goldstein
Project Coordinator

National Recreation and Park Association
1601 N. Kent Street
Arlington, Virginia 22209

April 1976

This Project was supported by Grant No. OEC-0-74-8734, U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

Project Staff

Peter J. Verhoven, Project Director; Manager, Research and Studies, National Recreation and Park Association

Judith E. Goldstein, Project Coordinator; Research Assistant, National Recreation and Park Association

David C. Park, Associate Project Director; Executive Secretary, National Therapeutic Rcreation Society

Advisory Committee

David Compton, Assistant Professor, Recreation Education Program, University of Iowa, Iowa City, Iowa

William A. Hillman, Coordinator, Programs in Physical Education and Recreation, Bureau of Education for the Handicapped, Washington, D.C.

Gerald Hitzhusen, Therapeutic Recreation Specialist, Department of Recreation and Park Administration, University of Missouri, Columbia, Missouri

Jerry Kelley, Therapeutic Recreation Specialist, Office of Recreation and Park Resources, University of Illinois, Champaign, Illinois

Leon Johnson, Assistant Professor, Department of Health and Physical Education, University of Missouri, Columbia, Missouri

Richard Schofer, Chairman, Department of Special Education, University of Missouri, Columbia, Missouri

Julian Stein, Director, Information and Research Utilization Center, American Association for Health, Physical Education and Recreation, Washington, D.C.

Project Officer

Melville Appell, Research Coordinator, Bureau Projects Branch, Division of Innovation and Development, Bureau of Education for the Handicapped, Washington, D.C.

TABLE OF CONTENTS

Acknowledgements . . . iii

Preface . . . v

I. INTRODUCTION: Leisure Activity Participation for Handicapped Persons. . Into the Third Century . . . 1

II. EVOLUTION OF A CONCEPTUAL FRAMEWORK FOR RESEARCH AND DEMONSTRATION STRATEGIES . . . 3

- Initial Conference Concept . . . 3
- Modification of Areas of Concern . . . 9

III. RESEARCH AND DEMONSTRATION INVESTIGATIONS: A Discussion of Priority Areas . . . 13

- Social Psychology of Leisure: Personalization and Socialization . . . 14
- Barriers to Acquisition and Maintenance of Skills . . . 15
- Activity Analysis, Selection, and Programming . . . 17
- Dissemination and Utilization: Applied Aspects of the Research Cycle . . . 20
- Service Delivery . . . 22

IV. THE RESEARCH PROCESS . . . 25

- Facet Analysis . . . 26
- Facet Model . . . 26

V. RECOMMENDATIONS: Research and Demonstration Strategies to Enhance Leisure Participation by Handicapped Populations . . . 29

- The Decision-Making Process . . . 29
- Social Psychology of Leisure Behavior . . . 31
- Leisure Activity Analysis and Programming . . . 34
- Barrier Reduction Through Environmental Design and Engineering . . . 35
- Dissemination and Utilization . . . 36
- Service Delivery . . . 38

VI. POSTSCRIPT . . . 41

Appendices. . . . .

A. State of the Art Presentations and Reactor Panel Comments. 43

Keynote Address: Alan M. Hofmeister. 45

Attitudinal Barriers: John A. Nesbitt, Presentor; Gerald S. O'Morrow, Fred Humphrey. 61

Activity Analysis: Carol A. Peterson, Presentor; Doris Berryman, John H. Lewko. 79

Adaptation/Design Considerations: T. J. Nugent, Presentor; Thomas A. Stein, Matthew Sullivan, Richard M. Switzer. 99

Education/Counseling: H. Douglas Sessoms, Presentor; Gary M. Robb, Thomas M. Vodola, Dennis A. Vinton. 117

B. 1969 Needs Assessment: University of Maryland. 135

C. Guidelines for Proposal Writing (Federal Register). 143

D. List of Participants. 147

ACKNOWLEDGEMENTS

Gratitude is expressed to the members of the Project Advisory Committee, who provided valuable guidance and counsel in framing the conference design, synthesizing the information gathered, and formulating the recommendations for research and demonstration which are included in this report.

Although this report was written and the presentations were edited by Judith E. Goldstein, Project Coordinator, appreciation must be extended to Rainer Martens, Research Professor, and John Lewko, Research Assistant Professor, Children's Research Center, University of Illinois (Champaign), and Donald E. Hawkins, Research Professor, The George Washington University, for their contributions to the conceptualization and content of this publication.

Special thanks are extended to the Department of Recreation and Park Administration, University of Missouri-Columbia, for the support and assistance provided in hosting the needs assessment conference and for enabling Jerry Hitzhusen to serve as liaison to the project staff.

PREFACE

In February 1974, the Division of Innovation and Development, Bureau of Education for the Handicapped, solicited proposals for the conduct of a research needs assessment conference in the area of leisure time activity for handicapped populations. The major objective was to investigate the state of the art as a means of determining priorities for needed projects and activities. The Division was to use the conference recommendations as the basis for framing a funding strategy which would respond to realistic needs. Preparation of a bibliography of research and demonstration projects and studies completed since 1963 was also a component of the contract.

This report provides the rationale for the conference focus, incorporates the discussions and deliberations of the conferees, presents a discussion of the research process, and elaborates upon the research and demonstration priorities developed as a result of the literature search, conference work group sessions, and subsequent input of others involved in serving handicapped children and youth. (The bibliography is published as a separate document.)

It is the sincere hope of the Division and the National Recreation and Park Association project staff that this document will contribute to the understanding of the scope and depth of leisure participation by handicapped populations and will be read and considered by researchers, educators, and practitioners involved in the diverse and multidisciplinary aspects of leisure activity for handicapped persons.

I. INTRODUCTION

Leisure Activity Participation for Handicapped Persons . . . Into the Third Century

As the Nation enters the Bicentennial year, citizens groups, private enterprise, and government prepare to celebrate the founding of this country and welcome the third century of life in the United States. The primary mode for participating in this celebration is through leisure activities—festivals, song fests, exhibitions, walking tours, special telecasts, sports and games, and demonstrations of traditional crafts. During the Bicentennial year the American public will have an increasing number of ways to learn about and pay tribute to our national heritage.

How will handicapped Americans join the non-handicapped in Bicentennial activities? Will they possess the skills to participate fully? Will they have access to special events? Will they feel comfortable with themselves and with others? To what degree will they be able to move around indoor and outdoor areas and facilities? What attitudes and reactions will they encounter from the "normal" population?

Historically, educators, medical personnel, and social service workers have focused upon schooling, social skills, vocational training, and medical intervention to facilitate the handicapped person's adjustment to institutional life or reentry into community life. Over the past decades, however, the helping professions have looked more closely at another behavioral dimension—leisure behavior—and have begun to incorporate leisure activities into their programs and use leisure skills as building blocks to achieve other goals. For people are both laborious and playful; they live in both real and fantasy worlds; and they grow as individuals and as social beings through work and through play.

At present, the body of knowledge and research concerning leisure activities as therapeutic and growth-producing tools is small. Consequently, educators, recreation practitioners, and medical personnel have few tested guidelines and little substantive data to help them make best use of leisure activities and leisure behavior in their work with handicapped persons.

This report addresses research and priorities for research and demonstration efforts developed to ultimately enhance the leisure skills of handicapped persons, enable them to participate more fully in the opportunities available in the community, and help them take more active responsiblity for directing their leisure lifestyle.

Inherent in our historical traditions and underlying the foundations of our country are tenets which recognize the sanctity of the individual, protect individual freedoms, and proclaim the right of each American citizen to life, liberty, and the pursuit of happiness. Despite the written words, our behavior often indicates that we pay only lip service to this philosophical framework. It is appropriate at this time of Bicentennial celebration and heightened national awareness that we reassess where we, as a Nation and as individuals, stand in relation to the fundamental principles to which we look to shape the political and social structure and policies of the United States. It is especially appropriate that we as members of professions which respond to the needs of this country's handicapped citizens assess where we stand professionally and personally in relation to the obligations we have assumed to promote and protect the handicapped person's right to life, liberty, and the pursuit of happiness.

II. EVOLUTION OF A CONCEPTUAL FRAMEWORK FOR RESEARCH AND DEMONSTRATION STRATEGIES

Initial Conference Concept

Within the broad purview of leisure time activity and the handicapped population exist a myriad of issues which lend themselves to investigation and discussion. In its initial proposal to BEH, the National Recreation and Park Association identified nine general areas of concern around which to structure the conference. These areas were not mutually exclusive, since research and demonstration activities undertaken within one classification would have important implications for the others.

Leisure Concepts and Implications for Handicapped Children and Youth

Leisure has been conceptualized in a variety of ways by psychology, sociology, recreation, philosophy, cultural anthropology, and related disciplines. Some view leisure as free time--those hours and days unencumbered by routine engagements and the responsibilities associated with earning a living, maintaining a household routine, or surviving. Some consider leisure an attitude or state of being, which involves life enrichment, discovery, contemplation, restoration, self-gratification, or inactivity. Others refer to leisure as activity and equate it with recreation, an important element in the life-culture of an individual.

From another perspective, leisure is lifestyle, a way of making choices about involving oneself in rewarding, exciting activities; success is determined by the extent, quality, and relevance of planning and education for leisure. Leisure is also viewed as a social instrument, a means of meeting the needs of deprived and handicapped individuals to help them actualize their potential and develop self-help skills. The holistic concept of leisure purports that leisure includes the full range of possible forms of self-expression which may occur during work or leisure; the meaning of work and leisure are inextricably interwoven.

The amount of available leisure time, the ways in which it is used, and the attitudes formed about it are determined by an individual's position in the social class structure and his/her race, economic status, educational background, family structure, occupation, and ability to engage in participatory or spectator activities. Free time, in and of itself, is not tantamount to leisure: Free time is transformed into leisure according to the way in which it is viewed and organized.

Leisure time assumes a vital place in the life of the handicapped population, especially those who are faced with an entire life of enforced non-work due to the nature of their disability which may preclude entirely or allow only marginal participation in gainful employment. For this population group, large blocks of unfilled or uncommitted time may represent a painful burden or a positive challenge, depending upon their personal situation and environment.

Unfortunately, many handicapped persons are institutionalized or homebound, or live in areas which offer few, if any, recreation programs and services geared to their special needs. Often their isolated existence limits their awareness of leisure time options, prevents them from developing skills and competence for successful and rewarding participation, and stems their interest, motivation, and ability to identify the resources they require. People in general have difficulty in using their free time wisely and productively; the problems faced by the handicapped person are more serious, however. Without doubt, the obstacles facing the handicapped individual are not inability or unwillingness to participate; they are privation, ignorance, and isolation.

Enjoying leisure time or activity presupposes a person's awareness of need; ability to plan for and choose leisure time options; interest, skill, and capability to participate; access to resources; motivation and support; positive attitudes about leisure participation; and ability to grow and alter participation patterns throughout life. The dignity and independence of handicapped persons are diminished to a great degree if these individuals are unable to chart the course of their leisure lifestyle.

There is a general and overwhelming need for persons in the helping professions to facilitate the handicapped individual's productive and rewarding participation in leisure time activities as a way of moving closer to a full and meaningful lifestyle.

Leisure Participation as it Relates to Human Growth and Development

Many have seen a relationship between the types and quality of leisure participation and such factors as development of self-image and self-awareness; positive self-regard; socialization; physical fitness; coping ability and perception of reality; self-care and maintenance; independence; self-actualization; employability; development of perceptual-motor skills; intellectual functioning; and family unit behavior and acceptance of handicapping conditions. Considerable investigation of the interrelatedness of these and other variables and assessment of the validity of conclusions drawn from research are required before service delivery can adequately meet the needs of handicapped persons.

One of the antecedents of adult leisure patterns is the nature and quality of play patterns exhibited by infants and children. The handicapped child is often hampered by inadequate opportunity for a variety of developmental play experiences. Many ramifications of this experiential deficiency have been identified by researchers and educators; if more implications were understood, the full impact of play deprivation would probably be profound.

Considerable research has been undertaken in the area of play, and many theories and concepts have been proposed about the benefits and functions of play behavior. To some, play is education, one of the primary means for making contact with people and things and learning about one's place in the world. Play is also seen as a humanizing agent through which the individual becomes a human being and learns to live in a social order and in a symbolic cultural world. Play is seen as an activity understood by the child, as an integral part of his/her world, and as his/her method of communication and means of testing and mastering the external world. Play is also considered a child's way to deal with experiences by creating model situations and mastering reality by experimentation and planning.

In another context, play is viewed as a means of channeling and expending surplus energy, a way of practicing instinctual behavior which will be necessary in adult life, and a means to achieve catharsis. Play has been utilized as a therapeutic medium to achieve a diagnostic understanding of the child, establish a relationship, break through defenses, relieve tension and anxiety, and, importantly, to develop a child's interest in play which can be carried over into daily life.

Most theorists agree that play behavior is part of a developmental sequence and that play, itself, progresses through different stages. Some theorists also agree that attitudes and interest concerning play, recreation, and leisure develop early and when accompanied by appropriate skills development, set the foundation for behaviors continued throughout life.

Since play behavior is dependent upon physiological, psychological, and intellectual processes, it is understandable that because of their handicapping condition, children may be deprived of or limited in early play experiences which form the basis for later leisure patterns and behaviors. However, limitations imposed by factors other than the disability can be lessened by the understanding and intervention of significant persons in the life space of the handicapped child. And, too, the child can learn to lessen the interference of the disability in the performance of leisure activities.

A significant issue in leisure time activity for the handicapped is the investigation of many ways in which leisure behavior patterns are developed and the ways in which family, school, community, and helping professions can contribute to the provision of environments and experiences to facilitate play for handicapped children.

Inhibitors/Facilitators of Leisure Participation

Environmental barriers have long been a concern of those working with handicapped persons and are coming to the attention of the general public as a result of the advocacy and consumer movements. Successful functioning within this society requires the ability to understand, interpret, and act appropriately upon signs, symbols and communications within the non-human and human environments; exert an influence upon external forces; have access to resources; move about with minimal difficulty; and assimilate experiences. Handicapped children and adults are greatly hampered in their daily living, work, and leisure participation by observable and subtle physical barriers and attitudes.

Often handicapped persons are unaware of the causes of their frustration and limited participation in normal human activities, and it takes a degree of awareness and exposure for them to realize that they are missing something which others have. Transportation to, entrance into, and mobility within recreation areas and facilities are important factors which facilitate or inhibit leisure participation.

Usability of materials, equipment, and apparatus is equally as significant in fostering involvement in leisure activities. Handicapped children and adults are often excluded from many leisure options because of the limitations imposed by their physical impairments; in general, programs do not provide the degree and types of modifications and adaptation necessary to accommodate these disabilities. The handicapped population is generally not encouraged to achieve self-reliance and resourcefulness which would allow them to better utilize the available opportunities.

One of the prime issues in increasing participation is to study the need for special equipment and materials; rules and regulations; activity space and facilities; activity scheduling; and instructional styles. It is also important to determine what types of problems the handicapped have in participating in regular programs and facilities and to see how they perceive so-called barriers.

Important in decreasing environmental barriers is legislation (and strict enforcement) and the work of architects, planners, and transportation experts. The 1968 Architectural Barriers Act requires that structures built or renovated with public funds be accessible to handicapped individuals. Medical technology and engineering fields also can contribute to increased leisure participation of the handicapped by designing safe, effective appliances to facilitate mobility and to correct physical impairments.

Activity Analysis

Ease or difficulty of participation in leisure time activities is a function of the individual's level of skill development; development of the body in relation to the requirements of the activity; intellectual level; ability to understand the concepts and/or rules upon which the activity is based; and degree to which the participant is able to gain feedback about performance from others, from internal and external cues, and from the results of his or her actions. By understanding the components of an activity, i.e., the physiological, psycho-motor, intellectual, social, and affective aspects, personnel can (1) use observation of performance as a diagnostic tool to determine in what areas a child is having difficulty, (2) develop a prescriptive program to ameliorate the problems (increase stamina, strength, eye-hand coordination, conceptualization), and (3) determine a child's strengths and abilities and provide activities which allow the development of increased skill levels and bring satisfaction to the child. Additionally, personnel can determine the types of modifications and adaptations necessary in equipment, physical space, activity organization, instructional method, and rules/regulations which will improve participant satisfaction and performance.

Techniques of activity analysis and the utilization of data gathered during the analysis are important concerns which require in-depth study.

Leisure Counseling/Development of Leisure Profiles

One of the important contributions which personnel can make to increasing leisure time activity participation by the handicapped population is to initate leisure counseling as part of the leisure services system to:

- assist the individual to maintain and strengthen his/her existing affiliations with family, friends, and community groups;
- help the individual form new ties with individuals and groups;
- teach the individual how to make use of available community resources for recreation;
- stimulate the individual's awareness of his/her own recreation needs;
- open new areas of recreation interest and develop new recreation skills; and
- mobilize community resources to increase leisure participation options.

Counseling helps to motivate the individual to participate in experiences which will be beneficial in light of his or her needs and desires for growth and experience.

According to O'Morrow, recreation counseling can be defined as:

> A technique in the rehabilitation process whereby a professional person uses all information gathered about a patient prior to discharge to further explore interests and attitudes, with respect to leisure, recreation, and social relationships, in order to enable the patient to identify, locate, and use recreation resources in the community.[1]

Hamilton provides a definition of counseling which is also appropriate for leisure counseling:

> Counseling might be thought of as a catalyst which enables the patient to avail himself to the resources of the rehabilitation process. It is through growth in understanding, which the counselee experiences, that he is enabled to utilize his own resources, the services made available to him for the purpose of overcoming his own handicap. [2]

The leisure counselor utilizes all data and personal knowledge about the handicapped individual to foster self-generated motivation and to achieve or stimulate positive, outreach action.

Leisure counseling is especially important within the family unit. An "Activity Survey" undertaken by the Mid-Missouri Mental Health Center in 1971 indicates a high correlation between emotional disturbance in children and inadequate parent/child relationship. One of the areas of this inadequate relationship is that of family recreation and leisure time activity patterns. Through counseling, family recreation habits may be modified to create a more positive climate within the family.

---

[1] Gerald S. O'Morrow, "A Study of Recreation Service to Psychiatric Patients in Relation to Pre-Discharge Planning and Aftercare." Unpublished doctoral dissertation, Teachers College, Columbia University, 1968.

[2] Kenneth W. Hamilton, Counseling the Handicapped in the Rehabilitation Process, New York: Ronald Press, 1950.

Recreation counseling attends to the recreation needs and interests of the individual as they relate to age, education, family, socioeconomic, and cultural elements; the recreation resources within the community; attitudes toward recreation; and contact with recreation personnel and facilities in the community. The leisure counselor seeks to help the individual establish a balanced leisure program, including elements for social interaction, creative expression, physical exercise, spectator appreciation, intellectual stimulation, and solitary relaxation.

Leisure counseling, coupled with vocational counseling, allows the professional to serve the handicapped individual as a whole person.

Leisure Education/Career Education for Leisure Occupations

It is possible and highly desirable to include within the school curriculum experiences which create awareness of and positive attitudes toward leisure and to develop within the students a variety of skills which will facilitate participation in leisure time activities. Integrating leisure education concepts, skills, knowledge, and attitudes into daily classroom activities can assist handicapped children to develop a positive regard for use of leisure time and to achieve a healthy balance between work tasks and leisure activities.

Additionally, instituting a career education framework for leisure occupations may assist handicapped children in identifying jobs within the Hospitality and Recreation Occupations Cluster. There are a wide variety of jobs in this cluster which are within the capability of persons displaying a broad range of disability. Leisure time activity may be appropriately linked to the world of work and may lead to satisfying employment.

The leisure education and career education concepts are appropriate ways of linking the community with the treatment or academic institution to provide a wider variety of programs and services within a locale and to increase the handicapped child's ability and interest in using the resources available.

Information Resources and Research Techniques

To be of value, research findings must be applied to programming and operational settings to initiate change. Researchers must be aware of the avenues for dissemination of results, and practitioners must be aware of the systems which include the type of research information they require in their operations. Many information systems now exist which can be utilized by both researchers and practitioners.

Research techniques should also be shared and refined to insure the validity and reliability of instruments. The research conference is one means of evaluating current research methodologies and determining ways to investigate the variables involved in leisure time activity.

Education, Training, and Development of Personnel

The quality, scope, and depth of professional preparation are important determinants of the ultimate level of understanding and effectiveness achieved by personnel and the appropriateness of service provided for handicapped persons. An evaluation of current training and degree programs is necessary in light of the special needs of the handicapped. Education and training must be structured to correspond to the actual tasks performed by the helping and health-care professions.

Another important segment of professional preparation is in-service training for personnel in institutions, schools, and agencies. Especially where staff function as members of a team, significant opportunities exist for improving service through well coordinated and conceived institutes, workshops, and skill development activities.

Mobilization and Full Utilization of Institutional and Community Resources

The greatest level of leisure activity participation can be achieved after all resources within the neighborhood and community are identified, coordinated, and mobilized. Part of the mobilization effort involves community education programs to inform residents and youth-serving agencies of the commonalities and differences of handicapped persons and their able-bodied peers.

Modification of Areas of Concern

The nine categories were presented to the Conference Advisory Committee at an initial planning session. After scrutiny and discussion, the topics of concern were reorganized into five new categories, which are briefly described here.

Leisure concepts—an overview of general issues:

- The role of activity participation in achieving normalization, deinstitutionalization, and mainstreaming.
- The effects of leisure time activity participation upon cognitive, affective, and motor development.
- The effects of passive and vigorous activities upon the capacity to learn and function within a social structure.
- Leisure participation as it relates to development of self-image and self-awareness; satisfaction with self; socialization; physical fitness; coping ability and perception of reality; self-care and maintenance; family unit behavior and acceptance of disabilities.

Attitudinal barriers--social and cultural attitudes and stereotypes which inhibit/lessen or facilitate/enhance participation by handicapped persons in leisure activities:

- Of community recreation personnel toward handicapped persons in their "normal" programs.

- Of the handicapped population toward themselves and their disabilities.

- Of the general citizenry and leisure services providers toward handicapped persons.

- Of non-handicapped peers toward participating with handicapped children.

- Of educators and physical educators toward the handicapped persons they serve in their classes and programs.

- Of handicapped individuals toward leisure.

- Stereotypic ways of viewing the potentials, capabilities, etc. of the handicapped population.

Activity analysis--process by which the components or factors of an activity are isolated:

- Techniques for analyzing activities.

- Developing and/or evaluating prescriptive programming.

- Applying activity analysis to special education, therapeutic recreation, and adaptive physical education programs.

Design/adaptation and considerations--natural and man-made barriers/facilitators to participation:

- Ways in which physical structures can be designed, constructed, and renovated to facilitate access to, entrance into, and mobility within to assist leisure participation.

- Adaptations of equipment and materials to meet special needs for usability.

- Ways in which the community as a whole can assist participation.

- Instructional styles, activity scheduling according to space, and facility layout and design.

- Legislation or policies affecting design.

- Medical appliances, prostheses, etc., to facilitate participation.

Education/Counseling:

- Leisure education--ways of introducing leisure concepts from pre-school through grade 12 to develop a wholesome, productive attitude toward participation and requisite skills; effects of leisure education upon participation.
- Career education--preparing handicapped children for careers in leisure service occupations.
- Leisure counseling--techniques, instruments; effects of counseling upon participation; mobilizing community resources; avocational counseling.
- Intervention modalities--use of reality therapy, behavior modification, transactional analysis, etc., and the impact of these techniques upon leisure participation.
- Personnel development--in-service training to prepare professional teams to structure services to enhance leisure participation; sensitizing agency, school, and institutional personnel to the leisure needs of the handicapped and to the basic similarities of the needs of "normal" populations and "special" populations.

These topical areas provided the structure around which state of the art presentations were framed and reactor comments were structured. (See Appendix A for the edited texts of these presentations.)

III. RESEARCH AND DEMONSTRATION INVESTIGATIONS: A DISCUSSION OF PRIORITY AREAS

Change can occur randomly or as a result of purposeful intervention. The consequences of change--the impact upon an individual, group, situation, institution, concept, or process--can be negative, neutral, or positive. Attempts at purposeful change usually are initiated to correct ineffective or inefficient patterns; produce a more desirable product, environment, or service; achieve goals or standards; prevent an unwanted event or action from occurring or perpetuate desired trends; or respond to the expressed needs and preferences of an individual or group.

There are many approaches to undertaking planned intervention to achieve change. However, it is safe to assume that the better the diagnosis of the situation, identification of the type and extent of change sought, and development of appropriate strategies, the better the outcome.

One of the ways to approach purposeful intervention is through research. Educators, therapeutic recreation practitioners, and researchers can play a substantial positive role in improving the leisure lifestyle of handicapped populations by adequately defining problems, formulating appropriate hypotheses, conceiving valid and reliable research designs, and applying the resultant data to bring about the type of change required for more effective leisure service delivery. For it is ultimately through service delivery--whether it be education, recreation, counseling, rehabilitation, leisure education, or more efficient transportation--that handicapped persons may learn the skills and have access to the resources which enable them to engage in more satisfying and involving participation in leisure activities.

(Several months after the conference, when the results of the work sessions had been analyzed, project staff and Advisory Committee members met to consider the most appropriate framework for developing research and demonstration priorities. The topics addressed in this section were derived from (1) those upon which the conference was based and (2) those which evolved during conference work sessions. Recommendations for each of the five areas of concern are presented in Section V.)

Social Psychology of Leisure: Personalization and Socialization

The general purpose of research on leisure for handicapped populations is to assist the individual to become competent in dealing with and relating to the world of self, world of people, and the world of objects, culture, and space. This conceptual framework was formulated by existential psychiatry to describe the way a person exists in the life space. The multitude of encounters, transactions, and behaviors required of each person each day involve at least one and usually all three of these worlds.

In a leisure context, for example, if an individual wishes to play baseball, he/she must have the confidence to participate (self), the ability to interact appropriately with other teammates (people), and the skills to manipulate the bat to strike the ball to send it to a point in space (objects/space). If a person has difficulty in relating in any of these three worlds he/she may elect not to participate in the game, may drop out, or may be asked to leave because of the disruption caused to the game. However, if the individual receives assistance in overcoming or compensating for the problem-producing behavior--that is, becoming more competent in one or more of the worlds—full and positive participation is more likely to result.

Life processes generally fall into two categories: socialization and personalization. Socialization refers to the behaviors, knowledge, and attitudes needed by an individual to function in society and contribute to the furtherance of that society; personalization refers to the behaviors, knowledge, and attitudes needed by an individual to understand himself/herself, develop positive self-regard and self-concept, take responsibility for self-direction and self-realization, and generally achieve a state of mental health and physical well-being.

Ordinarily skills resulting from and contributing to socialization and personalization overlap and complement and supplement one another; some may be more important to one process than the other. And usually weakening or strengthening in one process has a direct, if not proportional impact upon the other. These skills may be categorized as vocational, avocational, and interpersonal or as cognitive, affective, and motor.

It is generally believed that the potential for positive socialization and personalization exists in participation in leisure activities. However, under certain circumstances an individual may perceive leisure time as a burden, and his/her coping mechanisms may weaken or fail completely. In these instances, leisure time may be more debilitating than habilitating for an individual. The negative aspects of leisure time and leisure participation may be keenly felt by the handicapped person, who may lack competence in the worlds of self, people, and objects.

In spite of the belief in the positive potential which leisure may hold for an individual, little knowledge exists as to how much can be learned through leisure participation and to what degree such learning is transferable, what unique function leisure participation may serve in the socialization and personalization processes, and what environmental--physical and social—adaptations must be made to assist the handicapped person to participate in leisure activities. Research investigations can provide the substantive data and information necessary to respond to these issues.

Those helping professions which use leisure activities as tools and seek to enhance leisure participation through habilitation/rehabilitation/treatment processes have two general objectives: (1) to assiss the handicapped person to acquire leisure skills, which will be applied to leisure participation and (2) to assist the handicapped person to acquire other skills and knowledge through involvement in leisure activities.

In objective 1, the acquisition of leisure skills is an end in itself; that is, all handicapped persons have the right to the opportunity to engage in leisure activities, and to do so they require appropriate skills. On the other hand (objective 2), the acquisition of leisure skills may be viewed as a means to an end—the development of social and personal competence as exhibited through work, avocational pursuits, interpersonal relationships, and general self-maintenance.

To achieve these objectives it is necessary to study the handicapped person, the non-handicapped person, and the environment.

Barriers to Acquisition and Maintenance of Skills

Individual leisure skills may be predominantly motor, affective, or cognitive, or they may represent a combination of the three. For handicapped persons the physical surroundings, the instructional methods, the learning task, and/or the tools of learning may require modification to facilitate the acquisition of different leisure skills according to the limitations imposed by specific handicaps, the skill level of the learner, and the attitudes which the learner has developed about learning and about self.

Often the handicapped child or youth is prevented from acquiring leisure skills in the normal course of growth and development because no one takes the time to provide the learning situation, because instructional techniques do not respond to the unique learning characteristics of the handicapped child, because the child has not mastered the developmental skills required to perform more sophisticated tasks associated with leisure participation, or because interest and motivation to participate in leisure activities have never developed. Those working with handicapped children and youth play an important part in shaping attitudes and behaviors which prepare the individual for positive learning and skill development.

But acquisition of skills is only one-half of the task facing the handicapped person. He/she must be able to maintain these skills and put them into practice through continuous participation. No matter how successful a child becomes in an activity, if he/she cannot enjoy the pleasure of active involvement, learning may be perceived as frustrating and often futile.

Approximately 20 million people in the United States are limited in undertaking and performing their major life activities (going to school, playing with friends, daily chores), according to the National Health Survey (Series 10, No. 85, Tables 9 and 25, 1972). The survey estimated that 1.8 million of these persons were confined to their homes, mainly because of architectural barriers, lack of transportation, or limiting health problems, such as lack of urinary bladder control.

Because of their physical limitations handicapped persons are often confined and restricted in their interaction with and mobility within spacial configurations. They often lack the strength, stamina, or range of motion necessary to manipulate things and operate equipment in ways in which mass society takes for granted. These problems have been well documented in the vocational rehabilitation and medical literature; however, important areas of life exist other than rehabilitation and work adjustment.

Quite frequently a major portion of the life of a handicapped person is involved with off-the-job living; yet this facet of life has gained little attention. In leisure time, as in work, handicapped persons experience architectural barriers, improper equipment design, and lack of functional capacity (e.g., mobility to generate sufficient force and exertion to move levers, turn handles, push a wheelchair, etc.).

The handicapped learner and participant in leisure activities often experiences two types of problems--limited or difficult accessibility to leisure resources and problematic circumstances concerning use of facilities and equipment. A person confined to a wheelchair may be unable to approach and/or enter and move around in a museum, sports arena, or library; a person with cerebral palsy or an amputated limb may be unable to manipulate a piece of equipment required to engage in a recreation activity and may be prevented from participating.

Maintenance of skills requires practice and application. All people need to have access to resources and to move around in an environment which creates interactiveness (1) among and between people and (2) between people and objects and space. Unfortunately, many handicapped persons find that their work, play, and habitation environments do little to foster this interactiveness and that they must continuously contend with difficulties arising from inadequate design and construction. As a result, the time and energy which might otherwise be invested in growth-producing leisure participation is channeled into coping. Further, it is not sufficient to create barrier-free space; it is also necessary to create transportation links which accommodate the handicapped person who wishes to move between and among the spaces in which he or she works, plays, and lives.

The goal is to increase participation in leisure activities. It can be achieved if more is done to assist handicapped persons develop resourcefulness, independence, and self-sufficiency, thereby enabling them to cope more successfully with the environments in which they find themselves; if more is done to facilitate acquisition of leisure skills by improving the learning environment and expanding the opportunities for practice and use of skills; if more appropriate, consistent, and far-reaching use is made of existing building and grounds standards; and if stricter enforcement of laws and regulations is achieved.

The problems seem evident, and the knowledge to solve them is widely available. Why, then, are attempts to remedy these situations moving so slowly? Why doesn't there seem to be more far-reaching effort to bring about change? There appear to be several factors involved.

1. Although knowledge is available, one cannot assume that it is disseminated to the general public or those involved in engineering and environmental design.

2. Federal, state, and local legislation mandates standards and design criteria in some areas. However, sufficient enforcement and resources are needed to insure change.

3. Public interest fluctuates concerning reduction of architectural barriers and related issues. Some persons in strategic positions express little concern about handicapped individuals.

4. We have perpetuated the myth that effective social action should be directed toward reducing barriers for the "handicapped." This suggests two things: (a) that modification of structures, areas, and service systems has utility only for the handicapped population as a special interest group; therefore, the money for these modifications is diverted from social programs of benefit to the general citizenry, and (b) that the responsibility for a segment of the population rests not with that segment but with others who will ultimately see few benefits from their efforts.

These perceptions do not reflect the reality of the situation. First, accessibility and usability of areas and facilities and such support systems as transportation enhance the mobility patterns of all persons, specifically those who would not be considered "handicapped" in the usual sense but who are hindered by physical encumbrances and inconvenient design features. It is to the benefit of all to invest the time, effort, and financial resources to alleviate problems in design and construction. Second, handicapped populations have a responsibility and a desire to take part in the design of their destiny, lifestyle, and environment. They are frequently encouraged and allowed to do so, but they more frequently find opposition and unconcern when they attempt to exercise their rights and responsibilities. An attitude of cooperation among handicapped citizens, legislators, planners, and service providers would decrease the emphasis on "doing for" and allow all parties to move forward together in united action for the general benefit of the country.

5. Concern is expressed over the cost required to renovate existing structures and construct new facilities to meet the standards of accessibility and usability. Planners, designers, and engineers need to determine cost-effective approaches to altering the built environment which has evolved over centuries (and to what extent this change should occur), to create new technology to outfit the handicapped person to cope more satisfactorily with the environment as it is, or bring about the desired level of change and increased mobility through some combined approach.

Activity Analysis, Selection, and Programming

Closely associated with the need to remove physical barriers to participation is the need to increase the quality and flexibility of participation of the handicapped person by carefully selecting appropriate activities for skill acquisition. Of equal importance is effective programming for maintaining participation skills.

"Leisure activity analysis" is an emerging area of interest which is primarily concerned with determining the human performance demands of leisure activities. If a person cannot meet performance requirements, a recreator or educator may (1) bring the child to the level of performance required by practice and developmental activities, (2) modify the rules and lessen the exertion required to participate satisfactorily, or (3) decide that the child would be harmed by participation and/or that he/she would not be able to achieve the requisite skill level for participation. In the latter alternative, the practitioner would prohibit participation and select a more appropriate activity within the health and performance limits of the child.

The objective analysis of leisure activities may be viewed as a method which permits personnel to engage in a wider and more complex range of decision-making regarding specific activities that would optimize behavior change of a handicapped person and make available to him/her greater options for participation. The ability to make refined selections of activities in relation to specific goals and objectives would turn result in greater specificity and consistency in programming efforts, with a consequent movement toward the concept of "prescriptive programming." It is through programming—selecting, sequencing, scheduling, and delivering activities--that individuals receive the full benefits of the activity analysis process. And it is through prescriptive programming that the individual becomes the focus of attention and receives the greatest benefits of the expertise and understanding which helping professionals have to offer. In and of itself, activity analysis is relatively meaningless. But, when the findings of the analysis are synthesized and applied through programming, this arduous process becomes an appropriate undertaking.

To this point, discussion has focused upon acquisition of leisure skills as an end in itself. It is also possible to program for associated learnings--that is, to facilitate the acquisition of other social and personal skills and competencies which result from participation in leisure activities.

Little of the knowledge we acquire is learned and remains in a vacuum. It is constantly being integrated, shifted, modified, and transferred to new situations. The same may be said of skills and attitudes, which are also transferable and have appropriate application outside the initial learning situation. Skills which facilitate participation in leisure activities, therefore, may be appropriately used in related situations and may be a means through which an individual gains knowledge, shapes attitudes, and develops other competencies which help form his/her social and personal competence.

For example, it may be helpful to consider how an avocational (leisure) interest may develop into a vocational (work) path. A handicapped child becomes involved in woodworking through the Boy Scouts. He begins participation purely for the fun it provides during a summer camp session. Over a period of months he becomes more and more involved and discovers that he likes creating ornamental and functional objects from wood. He learns about trees and wood. He gains more satisfaction and praise and recognition from his peers. He is encouraged to exhibit his crafts at a local fair and wins a prize and sells most of his work. As a result, he is called upon to teach woodworking to other scout troups in the neighborhood. Eventually, he becomes an expert carpenter and spends his spare time designing furniture and decorative objects which bring him increased income and personal pride.

In this example, participation in a leisure activity evolved into a vocation which is also practiced as an avocation during non-work hours. In addition to providing an employment option, involvement helped this handicapped person to relate more appropriately and satisfactorily with people around him, gain the confidence to enter into other new activities, and find ways of establishing a lifestyle more nearly approximating that of his non-handicapped peers.

With regard to employment based around leisure occupations, the reader is directed to the Educational Testing Service (ETS) in Princeton, New Jersey, which is involved in a BEH-funded project on needs assessment in the area of career education for the handicapped population (contract OEC-0-74-7366). This area of investigation is not addressed in detail in this report because of the ETS project. However, it must be stressed that handicapped populations may be prepared for adult employment through the development of leisure skills and positive attitudes about leisure.

Many skills and knowledge may be acquired through participation in leisure activities. Of special relevance is the development of interpersonal skills, which include the ability to interact successfully with other human beings and meet personal needs for sharing, intimacy, friendship, cooperation, and nurturing.

Perhaps among the most speculated outcomes of leisure particiation, but the least documented, are positive changes in attitudes, motives, and personality of the handicapped person. For example, enjoyable and successful experiences in leisure activities may change the self-concept by increasing self-confidence, by fostering positive attitudes toward life, and by increasing achievement motivation. Similar outcomes may include acquiring personal pride; learning physical, emotional, and intellectual limits and strengths; developing more accurate awareness of body image and self-image; and identifying one's place in society.

In addition to developing leisure skills and vocational skills through participation in leisure activities, an individual may enhance cognitive functioning. This is a basic, yet frequently overlooked, potential benefit. For example, many activities involve serial memory, convergent and divergent thinking, creative thinking, and evaluative processes—all operative in day-to-day living. Prescriptive programming based upon sound activity analysis can strengthen cognitive functioning in handicapped individuals. Similarly, activities may be programmed which will improve affective and motor functioning.

Participation in leisure activities is also one avenue for learning classroom subject matter. Activities programmed in a prescriptive manner may assist individuals to learn math, geography, spelling, and a variety of other academic material; the ingenuity and understanding of personnel set the only limits to the possibilities for learning.

It becomes apparent, then, that joy, fun, challenge, and relaxation usually associated with leisure participation are only aspects of the experience. It is possible to isolate other benefits, which include: (1) development of leisure skills which also have vocational use; (2) development of interpersonal skills; (3) development of personality; (4) development of specific cognitive, affective, and motor skills and processes which have utility in all aspects of living; and (5) enhancement of learning (academic subject matter) in structured and unstructured educational and leisure situations.

Extensive research has been conducted on the processes used to learn both motor and cognitive skills. However, only a limited amount of this research has been directed toward special populations. For example, considerable research has been completed using reinforcement techniques with the mentally retarded, but personnel in therapeutic recreation, adapted physical education, and special education have shown little interest in these techniques for teaching leisure skills. Do reinforcement techniques work in the learning of gross motor skills or are there better methods for teaching these skills? Can mentally retarded children learn leisure skills through observation? What are viable incentives for the learning of leisure skills? Is competition an incentive for all special populations? What are the effects of competition on learning leisure skills? How do persons respond to success and failure?

Many more questions specific to certain handicaps could and should be raised. But the purpose in raising these questions is to illustrate the need to know about the social environment in which leisure skills are taught. The motives and the special needs of the handicapped person must be understood, and the learning environment must then be adapted to these conditions. This requires a knowledge of activity analysis for behavior development and a knowledge of instructional processes as they apply to these special needs.

Figure 1 illustrates the general components necessary to understand both the leisure behavior of handicapped persons and the behavior of non-handicapped persons toward handicapped populations in leisure activities. The intervention of helping personnel (1) facilitates the acquisition of skills and leisure participation (2), which in turn contributes to personalization (3) and socialization (4). Personalization and socialization are highly interdependent processes, which continuously have an impact upon each other. Although additional specifics might be added to this diagram, the detail provided is adequate for the purposes of illustrating the factors involved in the personalization and socialization processes.

Dissemination and Utilization: Applied Aspects of the Research Cycle

Once demonstration models are designed and tested and research results are analyzed and interpreted, it is imperative that the information be disseminated to those who need to know. No matter how valid and reliable a piece of research is produced and no matter how crucial the findings are to the resolution of a problem, the research effort will serve little purpose unless those delivering services to the handicapped populations know about what has been discovered and developed.

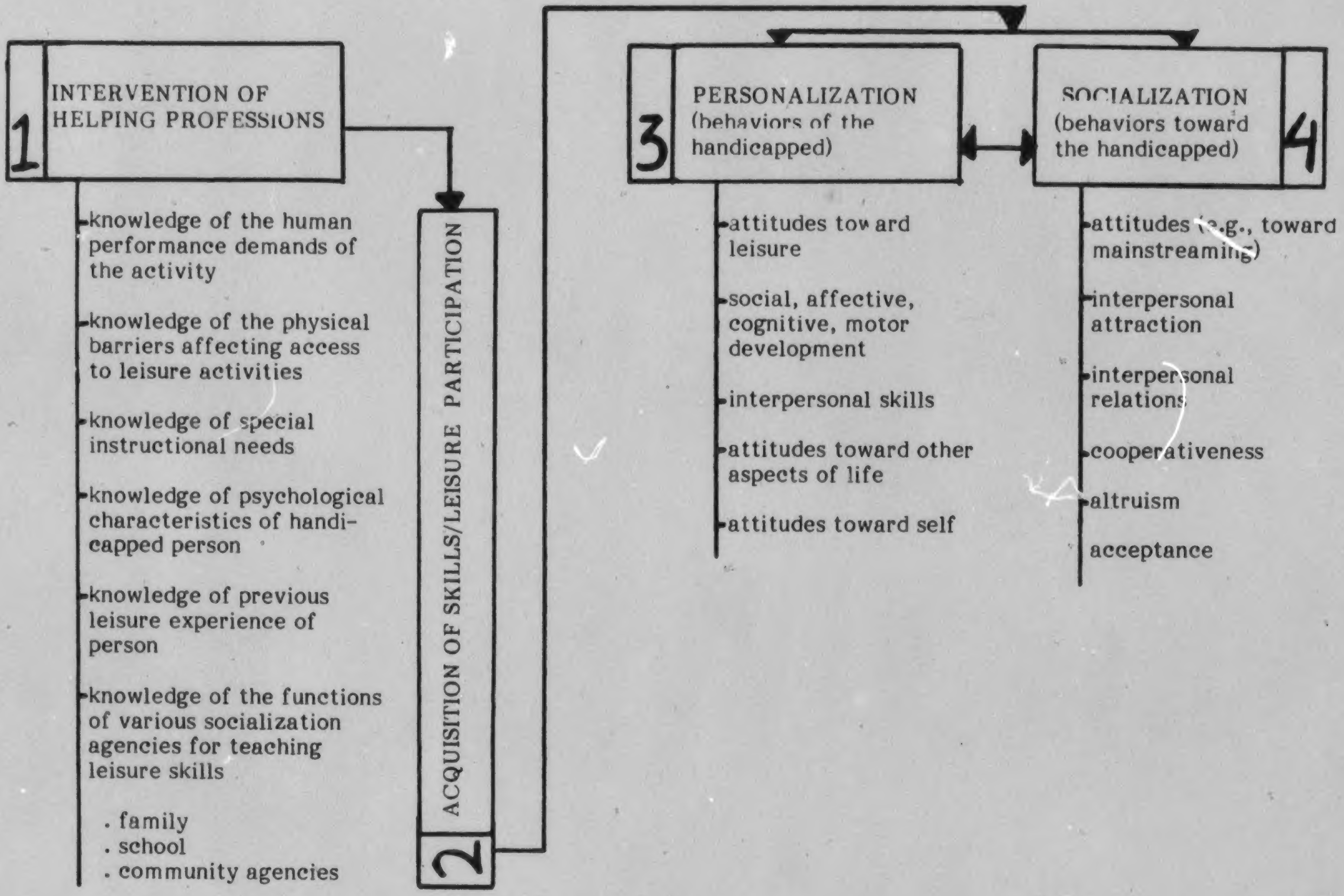
There are a variety of approaches to linking products/ideas with practitioners. The paramount concern is the development of well-conceived, judiciously designed, and efficiently operated systems which systematically retrieve, organize, and disseminate the types of descriptive information, product materials, and statistical data required to effect change and improve leisure service delivery to handicapped populations.

The next phase in the investigatory cycle is utilization--adoption and incorporation of ideas and materials into programs and services and the application of research findings and demonstration prototypes to achieve forward movement of leisure service delivery to handicapped persons and thereby enhance participation. Successful utilization is dependent upon several factors:

1. Incentives--the forces which motivate decision makers and other personnel to put into practice novel techniques and models, and/or incorporate unconventional rationales, and/or adopt revised priorities which may require a

FIGURE 1

DEVELOPMENT OF A SOCIALLY AND PERSONALLY COMPETENT PERSON


1
INTERVENTION OF HELPING PROFESSIONS
knowledge of the human performance demands of the activity
knowledge of the physical barriers affecting access to leisure activities
knowledge of special instructional needs
knowledge of psychological characteristics of handicapped person
knowledge of previous leisure experience of person
knowledge of the functions of various socialization agencies for teaching leisure skills
. family
. school
. community agencies
2
ACQUISITION OF SKILLS/LEISURE PARTICIPATION
3
PERSONALIZATION (behaviors of the handicapped)
attitudes toward leisure
social, affective, cognitive, motor development
interpersonal skills
attitudes toward other aspects of life
attitudes toward self
4
SOCIALIZATION (behaviors toward the handicapped)
attitudes (e.g., toward mainstreaming)
interpersonal attraction
interpersonal relations
cooperativeness
altruism
acceptance

significant change in the traditional orientation and/or delivery system of a service agency. Incentives may be positive or negative, intrinsic or extrinsic, and may include: challenge of experimentation, desire for professional growth, commitment to improving the life and lifestyle of handicapped persons, legislative mandate, threatened loss or assurance of funds, withdrawal or approval of agency certification or license, community or professional affirmation or censure.

2. Perceived rewards and benefits--the positive results which will accrue to the agency, target population, community, and profession during and following the implementation of the project. Benefits and rewards may include: increased budget, enhanced client growth and development, professional status and recognition, construction of new facilities, employment of additional staff, increased agency visibility.

3. Commitment and investment—allocating human, physical, and financial resources according to the prescribed guidelines; acceptance of the worthiness of the project to be undertaken.

4. Trained personnel--individuals cognizant of the concepts, meaning, and purpose of what is being applied and competent to implement, carry out, and evaluate the new technique, program, or service.

5. Appropriate application--such elements as timing, target group, settings, and procedures encompassed in the guidelines.

Analysis of the factors which influence implementation of new ideas and programs at the grass roots level is essential; and development of feasible utilization strategies ranks among the most vital tasks confronting those who produce, disseminate, and apply research data and prototype products and models.

Service Delivery

The research cycle is complete when utilization results in expanded and upgraded service delivery to increase the quality and scope of leisure participation by the handicapped residents of our commuities and institutions.

Success in bringing leisure activities to the handicapped public hinges upon a variety of factors, one or more of which may be problematical and have an adverse effect upon delivery:

1. Agency/institution support and commitment--acceptance by management and practitioner of the worthiness of the service or program and willingness to mobilize the resources required for delivery.

2. Economics--availability of funds to achieve the desired level of service delivery; cost-effectiveness of delivery; cost of programs, services, and facilities.

3. Appropriateness--provision of programs and services which meet the needs and preferences of user groups and correspond to existing and potential performance levels evidenced by and predicted for participants.

4. Accessibility and usability--barriers to and facilitators of participation, such as fees and charges, location, transportation, design and construction features, appropriate equipment, attitudes, availability of life support systems (telephones, restrooms, water fountains), and scheduling.

5. Personnel--availability of staff whose competencies facilitate participation by handicappd persons and who are able to provide and evaluate services and make necessary adjustments in process and/or content.

6. Maintenance of effort and continuity--commitment to sustain successful programs initiated through seed money or grant funds to assure continuity of service delivery patterns as agency organization structure and/or management changes.

Because of the variety of service delivery patterns and systems available, it is necessary to assess the factors affecting decision making and planning and undertake the development of guidelines which will assist personnel in designing and implementing the most efficient, cost-effective pattern/system which responds to local circumstances and user needs and preferences.

IV. THE RESEARCH PROCESS

The research process is not a mysterious method for uncovering truth; nor is the ability to use the process limited to a small segment of the population. It appears that research has been associated over time with complex statistical computations, highly regimented procedures, compulsory tasks (theses and dissertations), and isolated laboratories or highly abstract concepts pursued by academicians. As a result, many persons view research--both the investigation itself and the product of the investigation--in a negative light, as incomprehensible, and tend to steer clear of activities which carry this label. These individuals also frequently consider themselves unqualified to become involved in research studies which, according to the mystique, require skills and knowledge acquired only through specialized training.

It is valuable to point out that, contrary to widespread opinion, research can be creative, challenging, directed to real-life concerns, and often enjoyable. When designed and conducted according to felt needs in a particular work or service delivery setting, research can contribute significantly to problem solving, planning, and evaluation. It is also important to stress that most practitioners can become competent researchers by regrouping existing skills, overcoming negative attitudes toward research, and participating in in-service training and continuing education programs according to the type of research necessary and associated level of complexity and sophistication.

Competent scientific research is simply systematic inquiry requiring diligence, logical reasoning, and painstaking observations. The research process requires the ability to ask important questions about the real world and skill to design samples, choose observations, construct scales, analyze data, and synthesize results to reach conclusions about the world. The research process involves a series of choice points--decisions about which variables to manipulate and which to control and about the samples to study, the contexts in which to observe behavior, and the methods to use in observing the behavior. Members of the helping professions can readily learn these skills and apply them to investigatory projects.

Facet Analysis

Facet analysis* is one way to layout an area to be researched; it systematizes the generation of hypotheses. It enables the researcher to specify the boundaries and structure of research problems within the sphere of investigation.

Facets are categories. For this model they are specified as (1) the actors or population, (2) the behavior toward an object, and (3) the setting or context in which the behavior occurs. Each category has subunits called elements, which form the substance of a specific research activity and which must be specified in every research problem:

1. Actors or population--elements of this facet may be the type of handicapped person (deaf, blind, physically disabled) or handicapped/non-handicapped persons. The population may be individuals or groups.

2. Behaviors toward an object--this facet has frequently been specified as having cognitive, affective, and motor elements. Another useful classification of elements is diagnostic, interventive, and evaluative.

3. Context in which behaviors occur--some useful elements of this facet include: home, school, community; public and private; institutional and noninstitutional; structured and unstructured contexts.

As Runkel and McGrath (1972) point out, ". . . neither facets nor elements of facets are given by nature. Facets and elements are chosen arbitrarily by the researcher." The elements of each facet may be categorized in many ways, depending upon the objectives of the researcher.

It is important to recognize that facets and their elements may be quite general or very specific. The three facets identified herein are very general. However, within a specified facet an element may itself be elevated to the status of a facet. For example, the motor elements of the "behavior" facet may be made a facet, with gross and fine motor behavior specified as two elements. In turn, each of these elements may be viewed as facets and their elements delineated.

The most valuable tool for developing viable facets and elements is theory. And the first step toward building theory is the synthesis of extant research into relevant facets and elements of facets. The processes of building theory and developing facets are interdependent, with each contributing to the furtherance of the other.

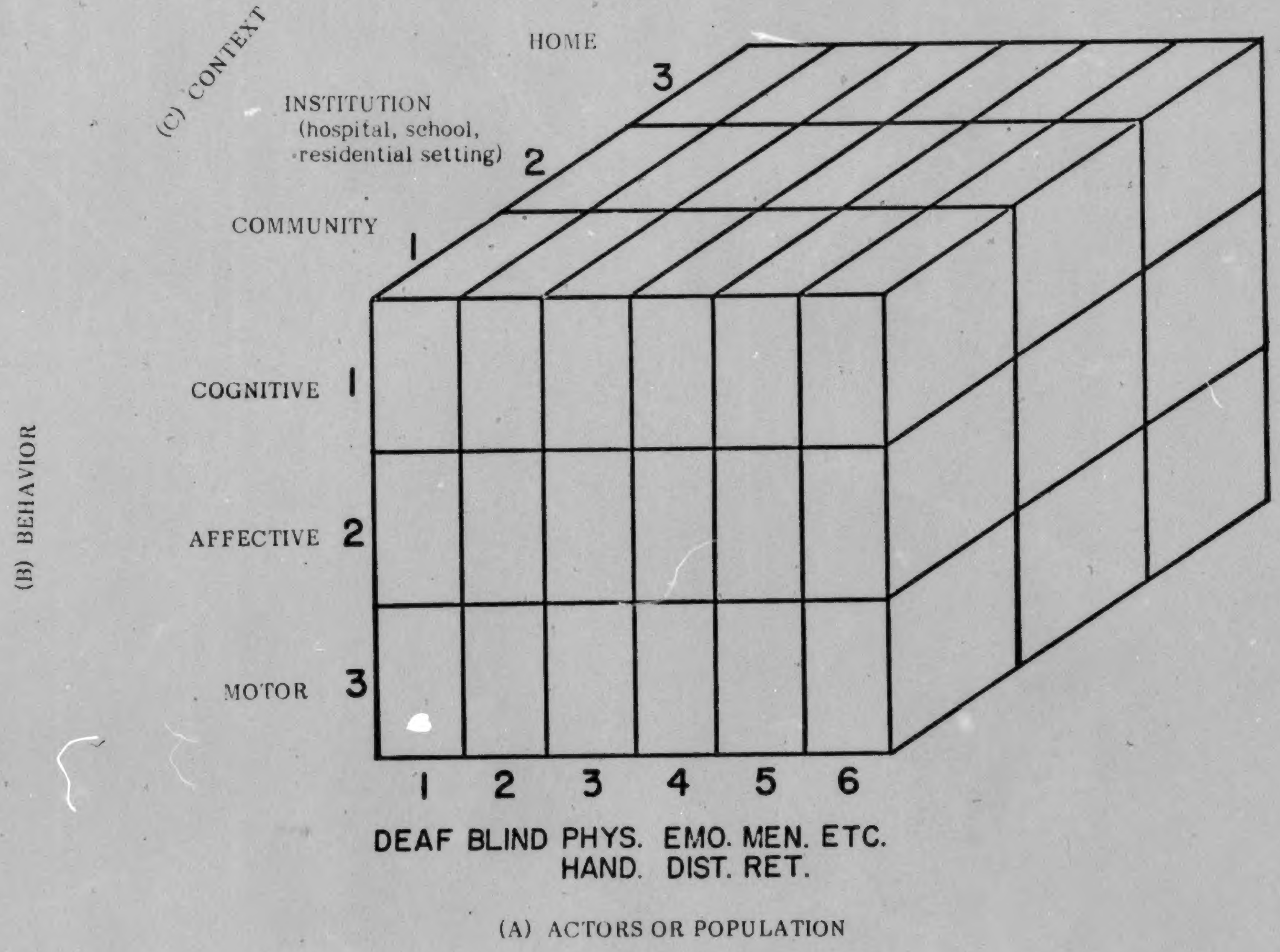
Facet Model

Figure 2 illustrates a general facet analysis for the study of leisure behavior. The elements selected for each facet are those which frequently emerged in the conference discussions of research problems. This method of analysis may be

---

* For the reader unfamiliar with facet analysis, the following references will be helpful: Philip J. Runkel & Joseph E. McGrath, Research on Human Behavior: A Systematic Guide to Method (Holt, Rinehart, Winston, 1972) and Fred N. Kerlinger, Foundations of Behavioral Research (Holt, Rinehart, Winston, 1964).

FIGURE 2


(C) CONTEXT
HOME
3
INSTITUTION
(hospital, school,
residential setting)
2
COMMUNITY
1
(B) BEHAVIOR
COGNITIVE 1
AFFECTIVE 2
MOTOR 3
1 2 3 4 5 6
DEAF BLIND PHYS. HAND. EMO. DIST. MEN. RET. ETC.
(A) ACTORS OR POPULATION

helpful for achieving both of the objectives specified for conducting research on the leisure behavior of persons with handicapping conditions. To formulate a specific research question, one element within the population, behavior, and context facets must be selected.

The critical task in determining research priorities within objective 1 (see page 15) is being able to identify the important elements that influence leisure skill acquisition. For example, let us specify bowling as the leisure skill. Within the general framework of the acquisition of bowling skill, the investigator would try to identify all of the possible factors which might facilitate or inhibit the acquisition of the skill. From the array of possible factors it would then be necessary to determine which are the most crucial, hence which should be investigated initially. Are the major factors primarily a matter of access to the bowling lanes (physical barriers)? Perhaps the reactions of non-handicapped bowlers generate anxiety in the handicapped bowlers, thereby interfering with skill acquisition (psychological variables). Has the skill of bowling been analyzed sufficiently to permit making reasonable decisions regarding the handicapped person's capabilities or deficits relevant to performance (activity analysis)? These questions are but examples of the type of thinking which is facilitated by using the facet analysis model to structure systematic inquiry.

Assume for the moment that the investigator is concerned with a population of trainable mentally retarded children. The context of acquiring the bowling skill is a community facility. The most immediate difficulty in skill acquisition is the lack of ability to generate sufficient force to propel the bowling ball the entire length of the lane (behavior). The research problem now has definition; population, context, and behavior have been specified. Although the elements might be specified in greater detail, the nature of the problem is clear, and the investigator is now in a position to design a study to determine the most effective way of assisting the child to develop adequate force production to facilitate the acquisition of bowling skill and thereby increase participation in the game.

From this example it becomes clear that research can be conducted in a community setting as well as in a clinical setting (hospital, institution, or clinic). It is important for practitioners to understand that they can conduct investigations as part of the daily activities in their work setting. It is also important to realize that in a clinical setting, variables are more easily controlled than in a non-clinical situation, such as a community center. Therefore, the investigator who is working with a host of intervening and confounding variables must take care to control as much as possible the influential factors and to select a context in which there is minimal chance for contamination of the project due to unknown or uncontrollable factors.

Investigators should be able to replicate all research studies in similar settings with identical population and behavioral facets. Especially if cost is low, it may be helpful for two or more persons to conduct the same study in different locations as a check on reliability and validity of findings. As research is disseminated, others might wish to undertake the study to determine the comparability of results. This process will greatly affect the value of the research data and information which are produced and will give the practitioner assurance that application of relevant findings to leisure programs for handicapped populations will in fact result in increased leisure participation and skill development.

V. RECOMMENDATIONS:
RESEARCH AND DEMONSTRATION STRATEGIES TO ENHANCE LEISURE PARTICIPATION BY HANDICAPPED POPULATIONS

A. The Decision-Making Process

Potential dangers face those in a position to establish research priorities: (1) inaccuracies in assessment of existing needs and problems within the sphere of concern; (2) interference of personal or political bias and vested interest; (3) unsatisfactory attainment of reasonable group consensus; (4) strictly prescribed and externally imposed methodologies; and (5) unrealistic predictions for feasibility and success. Every effort was made to avoid these pitfalls.

In framing the recommendations which follow, the project staff and conference advisory reviewed the areas of concern which formed the structure for the September conference; the reported concerns emerging at the conference from the state of the art presentations and group deliberations; the input solicited from a select group of researchers and practitioners; the recommendations developed by the 1969 needs assessment conference at the University of Maryland (see Appendix B); and the priority concerns held by the Bureau of Education for the Handicapped (full school services, career education for the handicapped, the severely handicapped, and early childhood education). It was assumed that these sources represented the best considered judgment about research and demonstration needs related to leisure participation by handicapped populations.

Biases

To the best knowledge and awareness of those involved, personal bias and vested interest did not adversely affect the assessment and decision-making processes. It was acknowledged that political forces do exert pressure upon funding agencies and that certain concerns are more fundable than others; however, as nearly as possible, the felt needs of the field were considered. The parties in the decision-making process naturally held personal preferences and priorities; but these were not inappropriately imposed upon the group.

Group Consensus

After adequate discussion and consideration of differing points of view and potential approaches to priority setting, the group members reached general agreement about priorities.

Prescribed Methodologies

The task of the work group was to identify projects and studies which should receive priority funding through the Division of Innovation and Development, BEH; this task was accomplished. Specificity of research design and methodologies was purposely omitted in the process to (1) encourage the creativity and resourcefulness of the researcher, (2) provide maximum lattitude in achieving desired results, and (3) allow the quality of the design and approach components of proposals to be one criterion assessed by BEH evaluators.

Therefore, the priorities which follow point to general areas of concern with identification of more focused topics for investigation. They serve as realistic guidelines for BEH consideration in the development of funding strategies. Research methodologies are left as the responsibility of the investigator.

Feasibility and Success

During the evaluation of suggested research and demonstration needs, it became evident that certain facets and elements were more important for certain handicapped populations than for others. In some cases an element of the behavior facet was relevant to all contexts and all populations.

Perhaps the most significant outcome of the efforts to specify priorities was an acute awareness of the lack of research in general relating to leisure activities and participation by handicapped populations, the lack of relevant theory, and the difficulty associated with specifying precise facets and elements. Those persons working in the field of leisure with both handicapped and non-handicapped populations have not yet defined a research sphere with any precision.

The field needs extensive descriptive research to assist in the development of viable facets and elements of facets; it needs to synthesize extant research. Leisure research may benefit from research findings and theory from related fields; however, such findings and theory should serve as guidelines and should not be accepted as totally and unquestionably applicable to the study of leisure behavior. Only investigations into leisure and leisure behavior can determine the applicability of findings from allied fields.

It is believed that attending to the priority areas and topics delineated within these areas is feasible and realistic in light of the state of the art of leisure research and handicapped populations and the tools available to the research community. Results, findings, and models developed as outcomes of research and demonstration investigations may be appropriately applied to real-life settings in which leisure and leisure participation are directly or indirectly issues of concern.

B. Priority Areas and Topics

Because of the interrelatedness of the priority areas--new information and data resulting from investigation of one area will affect another--no attempt was made to rank them according to the order of their importance and/or urgency. Ground work may be required on one area to set the stage for investigation in another. It is obvious, however, that advances in any of these priority areas will ultimately facilitate handicapped populations' participation in leisure activities and enable them to grow both personally and socially.

The research and demonstration projects suggested in this section represent a synthesis and expansion of the concepts, concerns, and issues reported by the small task groups at the September conference. They should be reviewed and pursued by those involved in research and demonstration activities which are relevant to leisure and handicapped persons.

Formulating answers to the questions raised in this report requires interdisciplinary coordination, continuous sharing of data and products, and cooperative and/or individual investigations involving architects, engineers, educators, social psychologists, physicians, vocational rehabilitation counselors, therapeutic recreators, programmers, and other allied personnel.

Social Psychology of Leisure Behavior

1. Attitudes of the handicapped population about leisure. In addition to the physical barriers which limit leisure participation, there are psychological factors which may prevent a handicapped individual from engaging in leisure activities. One of the primary psychological barriers is the development of negative attitudes toward leisure and participation.

Little is known about the leisure attitudes held by various handicapped populations. It is crucial, therefore, to adequately conceptualize the important attitudinal components of leisure.

Understanding the components of leisure is the first step in the development of a leisure attitude assessment instrument, which should be designed in accordance with the latest theoretical and psychometric developments in attitude research. Before satisfactory progress can be made in determining the attitudes of handicapped persons toward leisure it is essential to modify existing scales according to the unique requirements of this type of research and/or develop a completely new reliable and valid attitudinal scale if warranted.

After an attitude instrument is developed, the next task is to determine how the leisure attitudes of specified handicapped populations differ from those held by similarly matched non-handicapped populations. This phase would be descriptive. Through an adequate conceptualization of the leisure construct it would be possible to begin to identify the aspects of leisure which differ among the compared groups. These differences should provide indications as to what may be the determinants of attitudinal differences.

If negative attitudes prevail among certain handicapped groups, it will be necessary to determine how these attitudes are being formed. With an understanding of how they are formed, it is possible to begin experimental programs designed to change attitudes. The efficacy of these experimental programs in helping to form positive leisure attitudes must then be evaluated. In particular, the handicapped persons's own attitudes toward his or her participation in activities may block involvement. Research should determine how to help these individuals become involved in leisure activiites.

2. Achievement motivation of handicapped persons in leisure activities. Achievement motivation is an important part of school life and vocational life; it also pervades participation in leisure activities. A person's desire for success, aggressive drives, need for recognition, tendency toward growth, and participation in competitive activities may be considered as aspects of achievement motivation.

It is important to understand the influence of competitive leisure programs on handicapped persons for two reasons: (a) Success or failure experienced in competitive leisure activities may have profound effects on the development of interpersonal skills, achievement, self-concept, and other personality variables. Because failure at something at sometime is inevitable and because handicapped persons generally experience failure more frequently than their non-handicapped peers, it is important for the helping professions to understand how different persons react to their handicaps, how they respond to failure and success, and how competition hinders and facilitates mainstreaming and normalization. (b) Competition can affect the acquisition of leisure skills; some evidence indicates that it facilitates learning, but other evidence suggests the opposite. The function of competition as a common social process in learning leisure skills needs to be determined for specific handicapped populations.

There are many nationally known and local programs for handicapped populations which involve interactive sports and games. The influence of these competitive sports programs upon learning leisure skills and other social competencies is not yet known. Competitive leisure programs have the potential to be remedial, but they also have the potential to be psychologically harmful. The need exists to understand the influence of competition, particularly intense competitive programs, on intrapersonal factors, including attitudes, motives, and other personality factors. In addition, it is important to know the effects of competitive programs on the interpersonal behaviors of handicapped persons.

Also involved in achievement motivation are risk taking and encounters through which individuals act with or against each other and/or with or against the environment. Some important questions to be answered include: What are the effects of solitary vs. group participation upon achievement motivation, development of interpersonal skills, acquisition of leisure skills, development of personal competence? What influence do risk-taking activities (survival training, mountaineering, primitive camping) have upon social and personal competence and ability of the handicapped person to develop responsibility, independence, and self-sufficiency? Are there different desirable levels of stress and risk for various handicapped populations? At what level of risk does achievement motivation suffer?

3. Mainstreaming: Does it work? Considerable interest has been generated about "integrating" handicapped persons with the non-handicapped because of the positive consequences claimed by some early pilot programs. Unfortunately, the consequences of mainstreaming through integrated participation in leisure activities has not been rigorously examined. Evidence does not reveal whether mainstreaming changes attitudes and behaviors of handicapped and non-handicapped individuals toward each other or toward leisure participation. If changes occur, we do not know what elements of mainstreaming lead to changes in attitudes and behaviors. Does mere exposure to different people change attitudes in a positive direction? Or must certain experiences be incorporated into the integrated leisure program? How are handicapped persons perceived by non-handicapped persons, and vice versa?

Psychologists have conducted considerable research on interpersonal attraction. The theoretical propositions emerging from this research should be studied when handicapped persons are mainstreamed with the non-handicapped. For example, Aronson's gain-loss theory of interpersonal attraction suggests a very important hypothesis about how non-handicapped and handicapped persons will be attracted to each other as they jointly participate in leisure activities. Answers should be obtained to such questions as: Are interpersonal relations with a handicapped person rewarding to a non-handicapped person, and vice versa? How can the reward value of the relationship be enhanced?

A large number of specific questions could be raised, but the general thrust of the research problem being posed is to achieve an understanding of how mainstreaming through leisure activities influences interpersonal attraction and subsequent interpersonal relations. In addition, the influence of mainstreaming on the attitudes, self-concept, and personality of the handicapped participant needs to be understood.

4. Intervention modalities and leisure skills and participation. A number of intervention modalities have been developed which are potentially useful for helping the handicapped person achieve higher levels of personalization and socialization, acquire leisure skills, and engage in fuller participation. These modalities, which include dance therapy, behavior modification, music therapy, leisure counseling, psychotherapy, horticulture therapy, and gestalt therapy, among others, utilize different techniques and processes and strive toward different outcomes following involvement. However, they all involve behavioral change, learning, and non-verbal communication; and they all have implications for leisure participation.

Some pertinent questions are: What are the differences, if any, between the use of dance therapy and the inclusion of dance activities in a therapeutic recreation program? What is the impact of a specific intervention modality upon a handicapped person's ability to engage in more appropriate leisure behavior? What is the interrelationship and interdependence (commonalities/differences) of these modalities, and are certain techniques more appropriate with certain handicapped populations?

5. Self-development through special leisure experiences. A number of special leisure programs exist or have been created for experimental pilot programs. Research is needed to determine the effects of such programs as outward bound, day and residential camping (programmed or self-initiated), and

sports camps on self-development. That is, how do these special programs influence a handicapped person's conception of himself/herself, attitudes and motives? Studies in this area are difficult to execute because of the many variables that potentially may influence behavioral change.

Leisure Activity Analysis and Programming

A clear, concise, and readily usable method should be available to service personnel so that analysis of leisure activities becomes more objective and reliable. The basis for development of such a method could be derived from the model discussed on page 26.

As a conceptual organizer, the model requires one to think in terms of population, content, and context as they affect the pursuit of a goal or objective by means of a specific activity or sequence of activities. Such an analytic system would enable a variety of service personnel, including therapeutic recreators, special educators, and counselors, to be more effective when dealing with leisure activities and attempting to induce behavioral change.

Research priorities in this area of concern pertain to the development of a system by which leisure activities may be analyzed and a determination may be made of the effectiveness of current programmatic efforts. Important also is the identification of viable delivery alternatives.

1. Development of a reliable method or system of analyzing leisure activities which could be used by all personnel involved with leisure behavior and handicapped populations. It will be necessary to scrutinize existing approaches to activity analysis before undertaking development of a new system. Such a system would enable personnel to achieve a more scientific approach to changing behavior.

2. Development of a screening or evaluation instrument which would simplify and objectify the process of analyzing activities. This instrument would provide the practitioner with a standardized approach to the evaluation of the functional and performance levels of handicapped persons and an assessment tool to determine the degree to which leisure behavior has been changed.

3. Identification and/or elaboration of the behavioral requirements which are basic to participation in various leisure activities. Such knowledge would permit a greater understanding of the content areas that are of primary and secondary importance to the acquisition or performance of a specific leisure skill. The effect that the context and method have on the stability or variability of the behavioral requirements, both within and across various populations, would also be clarified.

4. Identification of the type and validity of activity adaptations currently being made. One of the critical factors in analyzing leisure activities is to determine the degree of adaptation, if any, necessary to allow a handicapped individual to acquire or perform a skill. Such knowledge would permit the practitioner to become more specific both in the selection and presentation of leisure experiences for different handicapped populations.

5. Systematic investigation of the influence of leisure activities upon behavior in contexts where leisure activities are used in a deliberate fashion to promote behavioral change. The assumption is continuously being made that as a result of exposure to leisure activities a handicapped person's behavior is changed. What elements of behavior are being changed? Why? It is time that such assumptions be substantiated through systematic investigation. Although the availability of an objective method of activity analysis would greatly facilitate such inquiry, its unavailability should not preclude research. The contexts could range from playgrounds to classrooms. One crucial aspect of such inquiry would be to differentiate between the behavior change which results because of specific activities and the change which occurs because of the approach to delivery of these activities. Many of the research priorities identified in the section on the social psychology of leisure are also applicable here.

6. Guidelines for programming in family, school, and community settings. Because many handicapped individuals will eventually leave clinical settings and return to their communities, it is important that their new environment be responsive to their needs and perpetuate participation patterns established in more protective circumstances. Schools and community-based recreation operations will require guidelines and information about the types of leisure activities to provide to handicapped participants and about how to promote continued growth and behavioral change. Development of activity programming packages through research and demonstration efforts would be a means for meeting the needs of practitioners in non-clinical settings.

Additionally, investigation of appropriate strategies to educate and involve parents and other family members in leisure activities would be valuable, since children and youth, especially those with handicaps, spend considerable time in family activities. Carefully designed dissemination plans, in addition to tested materials, would contribute greatly to bringing about increased family involvement in leisure programming for handicapped children and youth.

Barrier Reduction Through Environmental Design and Engineering

Participation in leisure activities by handicapped persons is severely curtailed if they cannot get to and use areas, facilities, and equipment. Manipulation of environmental factors not only facilitates participation, but also raises achievement gains, maximizes rehabilitation outcomes, and increases the interactiveness of people with natural and man-made features of their environment and with other people.

It will therefore be necessary and appropriate, as a means to foster increased and rewarding leisure participation, to eliminate or reduce the elements in the physical environment which inconvenience, inhibit, and hurt handicapped persons. Additionally, it will be necessary to focus upon the individual person to determine how he or she may be outfitted or trained to cope more satisfactorily with environmental factors.

1. Future planning efforts. An invaluable effort would be to identify and assess existing models and approaches to be used in future planning of leisure environments—public, private, and commercial; indoor and outdoor; buildings and activity areas. Also important is a study and assessment of accessibility and usability of support systems, such as transportation, sanitary facilities, telephones,

and food service establishments. This effort would be, of necessity, an interdisciplinary venture, including engineers, architects, planners, educators, recreators, and equipment designers. The focus should be upon planning and design which avoids the "handicapped" look and which incorporated subtle, unobtrusive features to facilitate mobility and usability by all persons.

2. Demographic studies of usability and use. Quite often, a facility or service which appears to meet the needs of the target user does not attract the magnitude of participation expected. The factors which attract and/or inhibit participation are difficult to determine. Therefore, it is important that a study be undertaken to identify the reasons why handicapped people do or do not use a particular area or facility and do or do not participate in a specific leisure activity. If these questions are also asked of the non-handicapped population, a comparison may be made of the two sets of responses. These data will assist those designing and providing services to accentuate the positive factors enhancing use and alleviate some of the problem areas.

3. Adaptation of existing and older facilities. It is one thing to incorporate good design standards and principles in the construction of new facilities and areas used for leisure activities. However, considerable attention should be focused upon ways to renovate or modify existing areas and facilities which will be in use for the years to come. This process may proceed economically and efficiently or the dollars invested may be wasted. Investigation of cost-effective and feasible ways to deal with the accessibility and usability factors inherent in existing leisure resources is important.

4. Identification, development, and production of devices for use by handicapped persons to facilitate participation. More effort can be invested in outfitting and educating handicapped persons as a means of facilitating participation in leisure activities. It is inevitable that a handicapped individual who lives, works, and plays in a community will have to travel to and move around in space which does not accommodate his or her limitations. One area of research and demonstration would be careful study of existing self-help and corrective devices and equipment and materials which have been adapted to the needs of handicapped persons. It would then be possible to design innovative devices and equipment which allow an individual to more nearly approximate the movement, dexterity, and flexibility of the non-handicapped population.

Dissemination and Utilization

Because of the vital function which dissemination and utilization serve in the research cycle, it is recommended that the Bureau of Education for the Handicapped include in each "Request for Proposals" a statement reflecting the importance of these processes and a stipulation that the proposals will be evaluated not only upon the value of the study and its design, but also upon the appropriateness and strength of the dissemination/utilization component.

1. Dissemination: A System. For the past four years and at present, the Bureau of Education for the Handicapped has been engaged in a national effort to provide ideas and materials to physical education and recreation personnel through the Information and Research Utilization Center (IRUC) and a variety of organizations which promote awareness and adoption of materials.

Research in this area is proceeding. IRUC has been funded in FY '76 to provide physical education and recreation personnel with a system or systems, new or extant, that will link product materials and/or ideas with the practitioner. This year-long effort will not only involve the dissemination of information on a service basis, but will also study the desirability of utilizing a system such as the National Media Center (Columbus, Ohio) in conjunction with IRUC's dissemination system or other system for demonstration of effectiveness. Until this effort is completed, research in the area of dissemination will be duplicative. IRUC represents the major research effort in physical education and recreation in dissemination.

2. Dissemination Plan: A Component of the Research Proposal. There are generally few guidelines to follow for disseminating ideas and products during and after the completion of research investigations. Because of the importance of getting data and information to those working with handicapped populations, it is imperative that each research proposal include a dissemination plan.

The plan would explain the utility of the anticipated results or products and identify the target recipients of the data, the person(s) responsible for carrying out the plan, the avenues through which the study/demonstration project would be publicized (conferences, newsletters, professional journals), availability of the material (cost, form, source), and the ways in which the recipient could contact the researcher to provide feedback.

Continued awareness of the importance of dissemination should gradually create a dissemination mind-set within the research community. A more conscious effort to transmit the results of research and demonstration activities will make possible a vital link between the researcher and practitioner and foster an automatic, ongoing flow of information. Researchers will no longer talk among themselves; they and their practitioner colleagues will be able to establish dialogue.

3. Utilization. It is generally accepted that not all research findings are valid and reliable; therefore, not all research is utilitarian, that is, serves a purpose and is readily applied. In the field of research into leisure activities and behavior of handicapped persons it is strongly emphasized that all research initiated should be utilitarian; that the focus of the research effort should be precise and respond to a specific need or problem area; and that a utilization component should be included in each research/demonstration proposal.

The awareness generated through dissemination must be sustained and subsequently focused on incorporating the ideas, processes, and/or products into the leisure service delivery system. What is required is a systematic effort that will eventually result in use of new ideas and products and gradual institutionalization of innovation--incorporation of material and information into ongoing continuous operations.

It is recommended that there be an investigation of the incentives required to achieve effective utilization of new materials and information; of training requirements to prepare personnel to become involved with initiating, conducting, and evaluating new programs and services; of strategies for achieving the desired incorporation, maintenance, and organizational support for new frameworks; and of the extent and effect of utilization in relation to different strategies to achieve change. It is also important to study the barriers to applying new data and information to formulate guidelines on how to initiate change and innovation once research results reach the service delivery level.

In light of these needs, it is recommended that a utilization plan be built into each research/demonstration proposal. This plan should describe the composition of a utilization committee which would guide the implementation and follow-up of the plan. The committee chairperson should be a specialist in research utilization. Because he or she will hold ultimate accountability for the direction and impact of the plan, his/her credentials and credibility should be carefully evaluated. A detailed qualifications statements should be included in the proposal.

One of the purposes for requiring a utilization strategy prior to proposal review is to increase the probability that the research effort will have utility and that the ultimate user will be able to apply the results or models to practice.

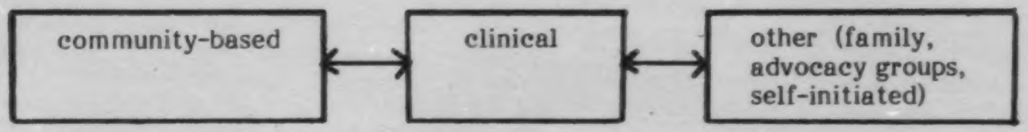
Thought should also be given to the factors which will increase the probability that incorporation and maintenance of innovation will occur in operational programs and service delivery systems. It would appear that as specificity is achieved in formulating population, content, and context facets of research designs, more satisfactory application of research findings will be possible, with the resultant positive impact upon service delivery and leisure participation by handicapped populations.

Service Delivery

A valuable, needed service may fail to have the desired effect upon the user if little attention is focused upon the principles of good service delivery. Service delivery may be on a one-to-one basis or on a small or large group basis. It may occur in a closed setting (treatment or institutional environment) or on a mass basis with voluntary, and therefore unpredictable, participation (community recreation center). Another approach is to provide the environment for self-selection of activities and solitary participation. The ways in which services are provided will depend upon the basis for delivery, the nature of the service, the unique circumstances existing in the delivery setting, and the needs and preferences of the user group.

There are, however, ways to improve the delivery system, no matter where it is located, what type of client is served, and what the existing local conditions may be. Research in this area may be called development research, since the issue at hand is the development of systems for delivering a product. Theoretical and applied research are more appropriate in the other areas identified for priority investigation.

Service delivery and participation contexts have been identified in the following diagram:



Framework for Delivery of and
Participation in Leisure Services

These environments will suggest differing guidelines from framing strategies to make services accessible to and usable by handicapped populations. Another important factor which will affect guidelines for delivery is the degree of simplicity or complexity of the service package: Providing an accessible neighborhood park requires different types of planning and operation activities than does providing a community recreation center which concurrently schedules activities which must be appropriate to a broad range of participant functional levels.

Service delivery is a continuum which moves from the prescriptive programming evidenced in a therapeutic recreation clinical setting with little freedom of choice on the part of the client to individually determined participation in a community setting. One way of moving from one end of this continuum to the other is through leisure counseling which helps an individual match skills with options for participation.

The goal of service delivery should be to facilitate participation of all who use the system and encourage independent participation; that is, enable the handicapped person, as well as the non-handicapped participant, to become involved with minimal assistance of other people. Only in this way will handicapped populations become able to direct their personal leisure styles and make self-motivated choices.

1. Consideration of diagnostic category and age in service delivery. It is necessary to determine as the basis for more sophisticated research studies which approaches to delivery may be more appropriate for different types of handicapped groups (blind, physically handicapped, learning impaired) and for persons at different age levels within these categories. For example, is tennis more appropriate for educable rather than trainable mentally retarded children? Is there a difference in appropriateness according to age level?

2. Segregated and integrated settings. It is important to identify the factors which operate in delivery settings serving only handicapped groups and those open to all persons, regardless of disability. Are common barriers present in both situations? What special considerations need to be made, if any, in integrated program settings? What type of training is required of personnel in each situation?

3. Environmental differences in delivery settings. What are the differences/similarities of providing services in open and closed space? What influence does perceived attractiveness of a facility have upon use and participation? What support systems (such as transportation) are most essential in suburban vs. urban environments?

4. Developmental level and participation. How can mass service delivery systems (public, private, and commercial) be designed to accommodate an unspecified and unpredictable user group? How much of a deterrent to involvement of the handicapped population is the presence of participants who are more proficient at particular leisure activities? Is screening of participants appropriate prior to allowing participation? How can residential and treatment facilities meet the different needs of participants with limited staff and financial resources?

5. Program length and frequency. Is there an optimum duration of an activity with respect to the attention span, physical limits, and required performance of a handicapped individual? Are there guidelines which may be

developed which will help personnel devise programming according to a pattern of (a) length of activity period, (b) frequency of repetition, and (c) extent of the time span in which it is offered? What is the impact of different variations of this formula upon skill acquisition and performance level?

6. Delivery techniques. In order to increase participation of handicapped individuals, it will be necessary to study and compare the variety of delivery techniques which exist and evolve new approaches. For example, what are the impact and feasibility of mobile vs. fixed location services? Do centralized services increase participation or are decentralized services more appropriate? How can a balance be achieved between meeting specific leisure preferences and providing general services to accommodate a broad range of community interests? Is it more feasible to have a central activity space within an institution or to bring activities to the residents wherever it appears they are most needed?

7. Risk-taking, learning, personalization, and socialization. Are there differences in the degree of learning achieved through participation in high and low risk activities? What factors must be present for handicapped persons to perceive risk? What counterculture activities provide for more rapid acculturation in handicapped individuals? What types of new activities may be offered and in what innovative ways to improve the ability of handicapped persons to take risks (and thereby achieve new levels of personal and social growth), to learn skills, and to develop personal and social competence?

8. Motivation and participation. How can service delivery systems address most appropriately the issue of motivation and participation? How can services be designed and delivered to promote success experiences, which will foster motivation to participate again? What are the factors involved in motivation?

9. Leadership styles and service delivery. Is there an ideal ratio of staff per participants? Does this ratio differ according to age of participants, number of participants, functional level of participants, nature of an activity? What influence do the training and experience of personnel have upon this ratio? Is one leadership style more appropriate in a specified delivery setting? Do persons with certain types of handicaps function more easily within a certain type of leadership approach? Can a regular or special educator be as effective in delivering services as a trained therapeutic recreation specialist? What qualities are most important in leadership personnel who work with handicapped persons?

VI. POSTSCRIPT

As facilitators of human growth and development we should recognize the special and invaluable role which we can play in the evolution of the handicapped individual's personal dignity and the realization of human potential. When left alone, a human being will struggle to survive and unfold regardless of the severity of the impairment. But when care, patience, and expert guidance and intervention are provided, the handicapped individual will develop more quickly and surely, reach higher levels of actualization, and gain the tools which enable him or her to become a more active and involved participant in the variety of activities which add meaning and direction to life.

Wise and rewarding use of leisure time is an important part of becoming a socially and personally competent person. Researchers and practitioners should seek more effective ways through research of enhancing handicapped individuals' ability to relate to and play in harmony with the non-handicapped members of society.

APPENDIX A

STATE-OF-THE-ART PRESENTATIONS

KEYNOTE ADDRESS

"Educational Research and Development"

Alan M. Hofmeister, Director
Special Education Instructional Technology Project
University Affiliated Exceptional Child Center
Utah State University
Logan, Utah

Selection of Type and Areas of Research

In studying research needs in any area of education, one has to be concerned with (1) critical areas for research and (2) the type of research conducted in the critical areas. A priority might be assigned to researching the role of activity participation in achieving normalization of the handicapped child. Is it sufficient to nominate this as the research area and call for funding? Would you feel comfortable if all the funds were spent on: survey research concerned with the state of the art in this area; or historical research concerned with analyzing how we came to be where we are now; or basic research concerned with the effect of leisure activity on the cardio-vascular systems of handicapped and nonhandicapped children.

Most of us would have some misgivings if all the available funds were spent on any one or all of these three types of research. It is apparent that the quality of life of handicapped children would be unchanged at the completion of such research, a fact which would very likely leave most of us (and the taxpayers in general) a little uneasy.

It is obvious that we are concerned about types of research as well as areas of research. Any approach to needs assessment in research must be concerned with two general dimensions: one concerned with specifying the area and the other concerned with identifying the type of research to be conducted within that area.

Research and Educational Practice

We rarely discuss the problem of research with the handicapped without confronting the problem of why research findings take so long to enter mainstream practices. A common approach to alleviate the delays is to recommend some system halfway between the researcher and the practitioner to facilitate this movement of research findings. It is a typical reaction to try to add something new or place the blame on something which does not exist or which cannot have its feelings hurt. We see this phenomenon many times when special educators sit down to work out what is needed to improve the system. The traditional response is to develop more effective materials, not better teacher training programs or better teachers. One might suggest that the reason research findings are not being rapidly accepted lies in the type of research being conducted and not necessarily in the dissemination process. In reference to this problem, Wattenberg (1963) reports:

> Perhaps it is time to ask why this must be so. Do lawyers wait twenty years to digest the latest Supreme Court ruling? Do dentists dawdle decades in adopting new techniques? Or, let us ask, what would his colleagues do to a doctor who continued to use high concentrations of oxygen with premature babies even six months after studies had appeared relating this practice to blindness? (p. 375)

When we look at the examples used by Wattenberg, we can understand why these findings move immediately into mainstream practice. The reason it is not a function of any dissemination process; it is a function of the type of research. When research is important, rapid dissemination follows naturally in these fields. However, in education, the practical implications are not always immediately obvious; if they do appear obvious at first glance, they may no longer on a second review. For example, special educators often feel that research in "learning theory" will translate readily into practice because learning is the heart of education. However, the warnings of Bruner (1963) and Scandura (1966) must cause us to revise this view. Bruner (1963) sums it up as follows:

> Though I myself have worked hard and long in the vineyard of learning theory, I can do no better than to start by warning the reader away from it. Learning theory is not a theory of instruction. It describes what happened. A theory of instruction is a guide to what to do in order to achieve certain objectives. Unfortunately, we shall have to start pretty nearly at the beginning, for there is very little literature to guide us in this subtle enterprise. (p. 524)

Closer to the field of physical education and recreation, we see a considerable waste of resources as a result of too much inappropriate research in the area of perceptual-motor training and cognitive skills. For too long, we depended on a very believable theory and correlational research; now we have to face the fact that recent research concerned with test and treatment validity of programs such as those developed by Frostig is not supportive.

Regarding the relative importance of research in education, Lamke (1955) made the following comment some 15 years ago, and the scene has changed little since then:

> If the research in the previous three years in medicine, agriculture, physics, and chemistry were to be wiped out, our life would be changed materially, but if the research in the area of teacher personnel in the same three years were to vanish, educators and education would continue much as usual. (p. 192)

Instead of the researcher looking for a scapegoat, it might be more profitable for him to evaluate his research. It is quite possible that dissemination of applicable research based on important problems will follow naturally as a function of the relevance of the research.

Another problem associated with the nature of the research lies in the resistance to research, resistance which is based upon disappointment associated with some "movements." When programs and materials are "pushed" on their face validity, we run the risk of building resistance to new research findings by disappointed practitioners. This is not to say that all research is incapable of, or should be capable of being effectively applied immediately; but it is possible that the effect of pushing materials not validated through field treatment is damaging enough to restrict the transmission of other research findings.

Research Methods and Research Problems

A typical reaction to the efforts of doctoral students to research certain problems is, "That area is too sloppy and too ill-defined for good research." A more accurate reply might be, "Yes, this is a valid area of research, but we do not have resources to equip you with the skills necessary to undertake that research."

If we do not scare off the prospective field-problem-oriented researcher with our initial reaction, we very often redesign the problem so that our resources are equipped to handle it. In so doing, we so change the research direction that the original problem cannot be solved. One of the best examples of this situation lies in our emphasis on comparative evaluation of instructional programs. Typical questions revolve around the problem, "How well does this method work?" However, when the question has been processed for research, it usually is rephrased, "Which is superior, Method A or Method B?" What is often overlooked in the case is the fact that neither Method A nor Method B is fully developed and that this premature evaluation will condemn one to obscurity before it reaches maturity.

In researching instructional programs there are two major directions: emphasis on developmental procedures and emphasis on the formal, final evaluation. Scriven (1967) used the terms "formative" and "summative" to describe these two processes. While our present tools are reasonably well equipped to handle some aspects of summative evaluation, they are almost useless for facilitating formative evaluation. Programs for the handicapped are far too underdeveloped to be able to afford this unhealthy emphasis on comparative evaluation that we have been forced into by lack of research resources to undertake formative research.

Cronbach (1963) makes this point quite forcefully when he points out that little is learned about reasons for differences just by determining that one program is superior to another. Cronbach (1963) also notes that ". . . evaluation used to improve the course while it is still fluid contributes more to improvement of education than evaluation used to appraise a product already on the market." (p. 675)

Models for Educational Research and Development

The scope of this paper will not allow for a detailed discussion of the types of research, most of which are described in the standard textbooks. I intend to focus on a more recently developed type of research, "educational research and development," or R&D. With few exceptions, descriptions of R&D have yet to appear in research textbooks, and training in R&D is not a common component of doctoral programs.

Borg[1] and Gall (1971) note that R&D ". . . appears to be the most promising strategy we now have for improving education." (p. 413) Education research and development refers to a systematic process for developing and validating an educational product. A product, used in this sense, is not limited to material, manuals, or films; it also includes methods of instruction or procedures of administration that are replicable. In comparing the respective contributions of other types of research to R&D, Borg and Gall (1963) state:

> Although they have many important contributions to make to education, basic and applied research are generally poor methodologies for developing new products that can be used in the schools. In applied research particularly, the researcher often finds himself comparing poorly designed, unproven, or incomplete products to determine which is less inadequate. This methodology generally produces negative or inconclusive results, and at best brings about improvement in education at a slow rate. . . R&D is not a substitute for basic or applied research. . . In fact, R&D increases the potential impact of basic and applied research finding upon school practice by translating them into usable educational products. (p. 414)

In order to exemplify the nature of R&D, the remainder of the paper will describe four variations of the R&D model.

THE BORG MODEL

This model (Borg et al 1970), summarized in Table I, refers to the R&D procedures Borg used to develop methods of in-service instruction. The data from the evaluation of these products (minicourses) showed evidence of powerful long-term changes in teacher and pupil behavior (Stowitschek & Hofmeister 1974). Some typical tasks and time estimates for the development of a minimcourse are listed in Table 2 (Borg et al 1970).

THE HOOD MODEL

The second model is that described by Hood (1973); it is similar to Borg's, but there are differences. While Borg places a heavy emphasis on existing research data and literature review as the first stage, Hood does not. The seven stages for a major R&D product in the Hood Model follow.

STAGE I: CONCEPT

Purpose: To determine if there is an adequate analysis of the need and a potentially feasible solution.

---

[1] The writer is indebted to the writings and personal communications of Walter Borg for the concepts related to R&D discussed in this paper.

TABLE I

The Major Steps in the Development Cycle

1. Research and Data Gathering	Includes review of literature, classroom observations, and preparation of report on the state of the art.
2. Planning	Includes definition of skills, statement of objectives, determination of course sequence, and small-scale feasibility testing.
3. Developing Preliminary Form of Product	Includes preparation of instructional and model lessons, handbooks, and evaluation devices.
4. Preliminary Field Test	Conducted by R&D personnel in one, two, or three schools, using between 6 and 12 teachers. Includes collection and analysis of interview, observational and questionnaire data.
5. Main Product Revision	Revision of product is suggested by preliminary field test results.
6. Main Field Test	Conducted by R&D personnel in between 5 and 15 schools using between 30 and 100 teachers. Includes collection of quantitative data on teachers' pre- and post-course performances, usually in the form of classroom videotapes. Results are compared with course objectives.
7. Operational Product Revision	Revision of product as suggested by the main field test results.
8. Operational Field Test	Conducted by regular school personnel in between 10 and 30 schools, using between 40 and 200 teachers. Includes collection and analysis of interview, observation, and questionnaire data.
9. Final Product Revision	Revision of product as suggested by operational field test results.
10. Dissemination and Distribution	Reports at professional meetings, in journals, etc. Includes work with publisher who assumes commercial distribution and monitoring of distribution to provide quality control.

TABLE 2

Task and Time Estimates for a Typical Minicourse Development

		DEVELOPMENT*		PRODUCTION*	
Stages and Procedures in Development	Per cent of Development Time	Professional	Clerical	Professional	Clerical
Research and Data Gathering	4				
1. Review literature & prepare report		6	1		
Planning	4				
2. Outline objectives & specific behaviors		4	1		
Development of Preliminary Form of Product	10				
3. Prepare scripts		4	2	1	1/2
4. Prepare handbook & evaluation forms		4	1		
5. Prepare instructional tapes		2		6 1/2	1
6. Prepare model tapes		2		7 1/2	1/2
Preliminary Field Testing or Evaluation	7				
7. Conduct preliminary field test		7	1	1	
8. Evaluate results		1	1		
Main Product Revision	11				
9. Revise scripts		3	1	1	1/2
10. Revise handbook & evaluation forms		2	1		
11. Revise instructional tapes		2		5	1/2
12. Revise model tapes		3		6	1/2
13. Prepare follow-up package		2	2		
Main Field Testing or Evaluation	30				
14. Conduct field test		11	4	4	1/2
15. Collect pre- and postcourse tapes		4		3	
16. Collect delayed postcourse tapes		3		2	
17. Evaluate main field test results		11	4	2	
18. Distribute & evaluate follow-up package		4	4		
Operational Product Revision	10				
19. Revise Course for operational field test		6	4	5	1
20. Prepare complete package		2	3		
Operational Field Testing or Evaluation	10				
21. Train operational test coordinators		3	2		
22. Conduct operational field test		4	2	2	
23. Evaluate operational field test results		2	2		
Final Product Revision	4				
24. Make final revisions		3	2	2	
Report Preparation	1				
25. Prepare R & D report		1	1		
Dissemination & Distribution	5				
26. Disseminate course for use		5	2	1	
Implementation	4				
27. Disseminate course in the schools		3	3		
	100%	104	44	49	5

---

*By Man-Weeks, The Man-Week allocation is an average, and will vary with each minicourse.

Product: At the concept level, the product consists of a proposal which includes a rough plan containing at least the following items: (a) statement and justification of the need; (b) discussion of alternative approaches together with an evaluation of each; (c) statement of the recommended concepts of functions together with proposed configuration; and (d) initial plan roughly outlining the required activities including their sequence, dates for accomplishment, and estimated cost.

Methods: Evaluation of the concept stage is based primarily on in-house judgment. Consultants may be employed if in-house capability is lacking.

STAGE II: MOCK-UP (PRELIMINARY PRODUCT DEVELOPMENT)

Purpose: To determine through the use of a tangible representation of the selected concepts whether the proposed model of the product appears to meet needs.

Product: The mock-up may be presented in the form of flow charts, outlines, scripts, storyboard rough, or other physical representations.

Method: Evaluation of the mock-up is primarily on in-house judgment, but may profit from the use of consultants or even a representative sample of users. Mock-ups may be employed to compare alternative representations. They are especially useful when the proposed product is complex in its form or novel to those who may be required to judge it.

STAGE III: PROTOTYPE (PRELIMINARY FIELD TEST)

Purpose: To test the feasibility of the model in terms of (a) the evaluation by and (b) performance of a small representative group of users.

Product: All major types of elements of a complete model (but not necessarily all elements of each type) in a configuration and context permitting judgment of feasibility.

Method: Formal and informal evaluation by a small but representative sample of the various types of users with additional informal evaluation by R&D staff and possibly consultants. This evaluation may be conducted either in the R&D facility or in the field.

STAGE IV: PERFORMANCE TEST (TWO SUB-STAGES: (a) PRELIMINARY and (b) DEFINITIVE

Purpose: To determine if the model meets specifications and to discover how it may be improved.

Product: A complete model with all the necessary elements for evaluation (the model may be lacking a complete set of implementation aids, but if these can be made available, they should be tested at this time).

Method: Evaluation is mainly formal including a complete plan for testing and interpretation, plus a complete set of instruments and test instructions. Ideally, the sample should be a stratified, representative sample. The criteria and standards should be pre-specified.

STAGE V: OPERATIONAL READINESS

Purpose: To determine the product's readiness and to make needed improvements prior to release.

Product: The complete operational product including all implementing aids.

Method: Operational readiness tests consist of both formal and informal elements. The formal instruments should focus on critical aspects of readiness. Informal procedures, including *ex post facto* analysis of failures, should be planned for. Generally the sampling is accidental or purposive. The criteria are primarily judgmental and usually involve a variety of dimensions. A single composite index of acceptability may be entertained, but generally a conjoint set of minimal requirements should be pre-specified.

STAGE VI: DISSEMINATION PLAN

Purpose: To evaluate the dissemination of the product.

Method: This is based primarily on in-house judgment, considered in comparison with specified, general criteria.

STAGE VII: QUALITY CONTROL

Purpose: To monitor the product (a) for improved use and (b) improved design of new models.

Product: The final nationally distributed "package."

Method: The test here usually is of omnibus form and longitudinal with respect to time. Some systematic procedures are recommended, but much of the evaluation will be of an informal or *ex post facto* variety.

FOUR-D MODEL

This model (Thiagarajan, Semmel and Semmel 1974) has characteristics in common with the first two models. A dominant emphasis in this model is that of analysis. The term "Four-D" is derived from the four major stages: define, design, develop and disseminate. The following description of the four stages is taken directly from the sourcebook "Instructional Development for Training Teachers of Exceptional Children" (Thiagarajan, Semmel and Semmel 1974).

STAGE I: DEFINE

The purpose of this stage is to stipulate and define instructional requirements. The initial phase is mainly analytical. Through analysis, we prescribe objectives and constraints for the instructional materials.

Front-end analysis is the study of the basic problem facing the teacher trainer: to raise the performance levels of special education teachers. During this analysis the possibilities of more elegant and efficient alternatives to instruction are considered. Failing them, a search for relevant instructional materials already in circulation is conducted. If neither pertinent instructional alternatives nor materials are available, then the development of instructional material is called for.

Learner analysis is the study of the target students--special education teacher trainees. Student characteristics relevant to the design and development of instruction are identified. The characteristics are entering competencies and background experiences, general attitude toward the instructional topic, and media, format, and language preferences.

Task analysis is the identification of the main skill to be acquired by the teacher trainees and analyzing it into a set of necessary and sufficient subskills. This analysis ensures comprehensive coverage of the task in the instructional material.

Concept analysis is the identification of the major concepts to be taught, arranging them into hierarchies, and breaking down individual concepts into critical and irrelevant attributes. This analysis helps to identify a rational set of examples and nonexamples to be protrayed in protocol development.

Specifying instructional objectives is the conversion of the results of task and concept analyses into behaviorally stated objectives. This set of objectives provides the basis for test construction and instructional design. Later, it is integrated into the instructional materials for use by instructors and teacher trainees.

STAGE II: DESIGN

The purpose of this stage is to design prototype instructional materials. This phase can begin after the set of behavioral objectives for the instructional material has been established.. Selection of media and formats for the material and the production of an initial version constitute the major aspects of the design stage.

Constructing criterion-referenced tests is the step bridging Stage I: Define and the Design process. Criterion-referenced tests convert behavioral objectives into an outline for the instructional material.

Media selection is the selection of appropriate media for the presentation of the instructional content. This process involves matching the task and concept analyses, target-trainee characteristics, production resources, and dissemination plans with various attributes of different media. Final selection identifies the most appropriate medium or combination of media for use.

Format selection is closely related to media selection. Later in this sourcebook, 21 different formats are identified which are suitable for designing instructional materials for teacher training. The selection of the most appropriate format depends upon a number of factors which are discussed.

Initial design is the presentation of the essential instruction through appropriate media and in a suitable sequence. It also involves structuring various learning activities such as reading a text, interviewing special education personnel, and practicing different instructional skills by teaching peers.

STAGE III: DEVELOP

The purpose of Stage III is to modify the prototype instructional material. Although much has been produced since the Define stage, the results must be considered an initial version of the instructional material which must be modified before it can become an effective final version. In the development stage, feedback is received through formative evaluation and the materials are suitably revised.

Expert appraisal is a technique for obtaining suggestions for the improvement of the material. A number of experts are asked to evaluate the material from instructional and technical points of view. On the basis of their feedback, the material is modified to make it more appropriate, effective, usable, and of high technical quality.

Developmental testing involves trying out the material with actual trainees to locate sections for revision. On the basis of the responses, reactions, and comments of the trainees, the material is modified. The cycle of testing, revising, and retesting is repeated until the material works consistently and effectively.

STAGE IV: DEVELOPMENT

Instructional materials reach their final production stage when developmental testing yields consistent results and expert appraisal yields positive comments.

Before disseminating the materials, a summative evaluation is undertaken. In its validation testing phase, the material is used under replicable conditions to demonstrate "who learns what under what conditions in how much time" (Markle 1967). The material is also subjected to professional examination for objective opinions on its adequacy and relevance.

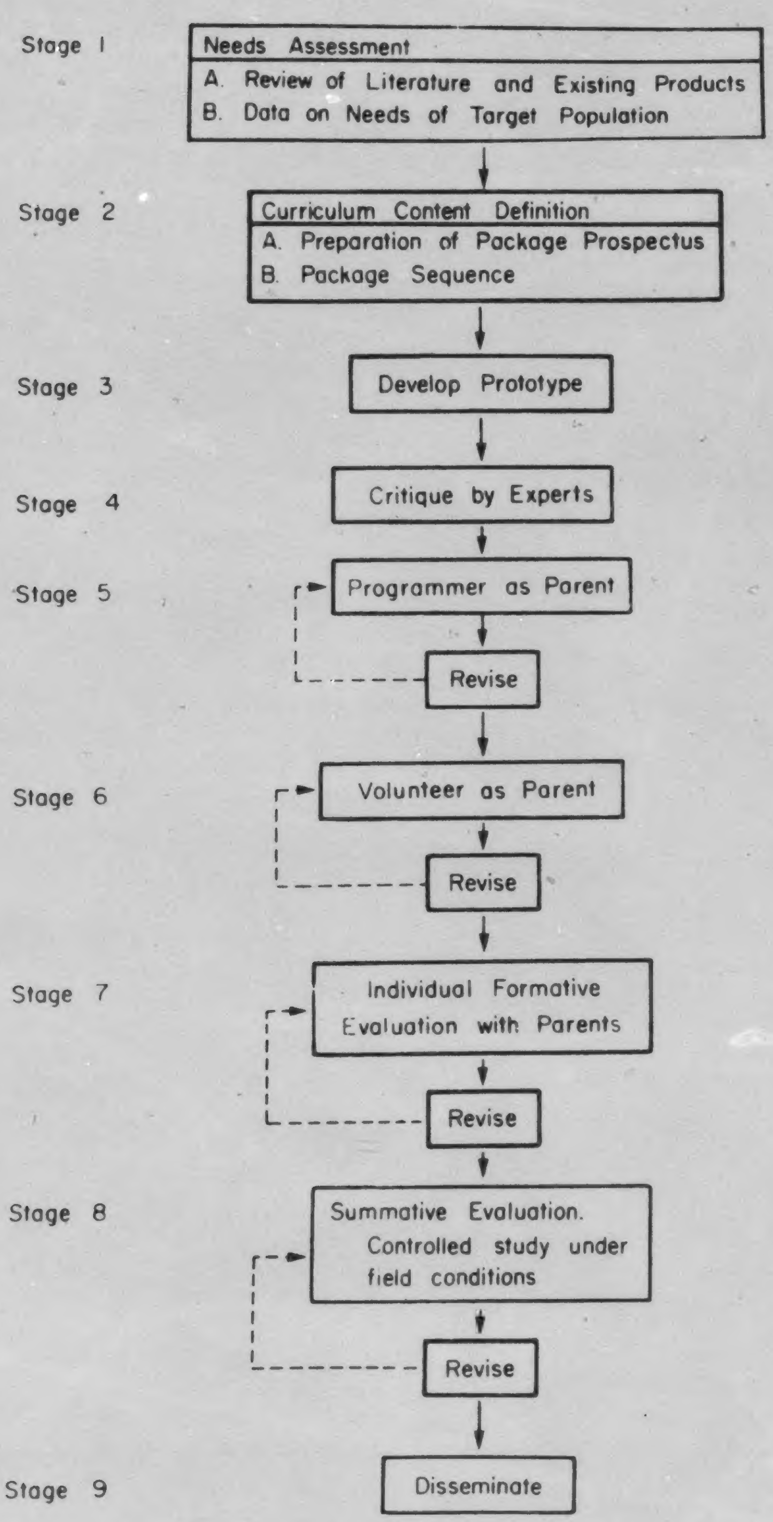
The terminal stages of final packaging, diffusion, and adoption are most important although most frequently overlooked. A producer and a distributor must be selected and worked with cooperatively to package the material in an acceptable form. Special efforts are required to distribute the materials widely among trainers and trainees and to encourage the adoption and utilization of the materials.

PARENT PACKAGE MODEL

In the strict sense, this example is not a model in that it has limited generalizability. The principles of the R&D process were used to prepare a highly specific procedure for developing parent packages. These "Packages" are self-contained sets of materials designed to allow the parent of a severely handicapped homebound child to train the child in selected academic, leisure, and self-help skills. This R&D sequence is in use at the Special Education Instructional Technology Project, Utah State University. Figure I lists the major stages in this "model."

FIGURE 1.

Parent Package Development Sequence


Stage 1
Needs Assessment
A. Review of Literature and Existing Products
B. Data on Needs of Target Population
Stage 2
Curriculum Content Definition
A. Preparation of Package Prospectus
B. Package Sequence
Stage 3
Develop Prototype
Stage 4
Critique by Experts
Stage 5
Programmer as Parent
Revise
Stage 6
Volunteer as Parent
Revise
Stage 7
Individual Formative Evaluation with Parents
Revise
Stage 8
Summative Evaluation. Controlled study under field conditions
Revise
Stage 9
Disseminate

The following is a brief description of those aspects of the model not included in the first three models.

STAGE V: In this stage the individual developing the specific package takes the role of the parent and tries out the package with between three and five members of the target population.

STAGE VI: A volunteer of similar training to that of the target population parent uses the materials while observers watch and listen behind one-way glass. A major purpose of this stage is to assess the ability of the package to function independently of professional instruction.

Summary Statement

From the overview of the four R&D models, it should be evident that the R&D process incudes many of the research procedures in use in basic and applied research. The unique feature of the R&D process is the systematic use of existing knowledge and research skills to provide the field with a validated product ready for use. Any consideration of research priorities must give serious consideration to R&D if research efforts are to have an impact on the whole field. For too long research activities have been directed by such forces as the restrictions of existing doctoral programs and the personal interests and skills of researchers. The time has come to look objectively at the needs and design the resources and activities to fit such needs.

The R&D process offers some chance of breaking down the dichotomy between research and training efforts. The research technology being developed in the different R&D models is research that can be used in improving training efforts. Such support of training efforts has not been evident in many of our research strategies.

Bibliography

Borg, W. R. and Gall, M. D. 1963. Educational Research: An Introduction. (2nd ed.). New York: David McKay Company, Inc.

_________; Kelly, M. L.; Langer, P.; and Gall, M. 1970. The Mini Course: A Microteaching Approach to Teacher Education. Beverly Hills: Macmillan Educational Services, Inc.

Bruner, J. S. 1963. "Needed: A Theory of Instruction." Educational Leadership, 20: 523-532.

Cronbach, L. J. 1963. "Course Improvement Through Evaluation." Teachers College Record, 64: 672-683.

Hood, P. D. 1973. "Evaluation Stages for Major Laboratory Products." In J. K. Hamphill (ed.), *Educational Development: A New Discipline for Self-renewal.* Eugene, Oregon: University of Oregon Printing Department.

Lamke, T. "Introduction." 1955. *Review of Educational Research*: 192.

Markle, S. M. 1967. "Empirical Testing of Programs." In P. C. Lange (Ed.) *Programmed Instruction*. Sixty-sixth yearbook of the National Society for Study of Education. Chicago, Illinois: University of Chicago Press.

Scriven, M. 1967. "The Methodology of Evaluation." *Perspectives of Curriculum Evaluation*. AERA Monograph Series. Chicago: Rand McNally.

Stowitschek, J. and Hofmeister, A. M. 1974. "Effects of Minicourse Instruction on Teacher Performance and Pupil Achievement." *Exceptional Children*, *40*, No. 7: 490-495.

Wattenburg, W. W. 1963. "Evidence and the Problems of Teacher Education." *Teachers College Record*, *64*: 374-380.

STATE-OF-THE-ART:

Attitudinal Barriers

Presentor: John A. Nesbitt

Reactors: Gerald O'Morrow, Fred Humphrey

Presentor: John Nesbitt
Chairman, Recreation Education Program
University of Iowa, Iowa City

"Attitudinal Barriers"

Industry has invested considerable human and fiscal resources in changing attitudes through advertising. What would happen if the agencies and organizations for which we work were to automatically devote 20 to 25 percent of their total operating budgets to advertising, education or rehabilitation? Last spring, a colleague reported that from 1 to 1.5 percent of the monies in industry and manufacturing go back into research and development. If our teachers, recreation practitioners, public health officials, social workers, urban planners, and others were to respond to new insights, innovations, and research as rapidly as industry does, our entire society would be advanced well beyond current social, economic, and interpersonal levels.

The fact that "helpers" in the public service professions stand by while large numbers within our population suffer malnutrition, educational deprivation, ill health, and cultural-recreational exclusion suggests the degree to which they and society are captive of less than desirable attitudes, values and philosophies. And before there is any chance of freeing the handicapped population from the constraints imposed upon them by themselves or society, we professionals--especially we recreation and park professionals--must free ourselves from our attitudinal constraints.

The "attitude game" is a tough one. Some attitudes are practically unchangeable. The tenacity with which we hold on to some of our attitudes suggests that we will have a difficult task when we choose to advocate attitudinal change toward handicapped populations.

Social Basis for Recreation for the Ill and Handicapped

Recreation for the ill and handicapped is only one feature of our society that is governed in large part by tradition, by people's collective philosophy-values-attitudes-behavior. Usually, when we make changes in our society the changes are based upon our change in "attitude" rather than upon "hard data" from research. Thus, it is critically important, as we attempt to deal with the area of recreation for the ill and handicapped, that we set forth a basis or rationale for what we are doing.

The following is one rationale which I feel makes sense:

1. Recreation is a human and civil right of all people, including the ill and handicapped.

2. Recreation for the ill and handicapped is a part of "normalization" for people who would otherwise be deprived of many fundamental life and leisure experiences.

3. Recreation for the ill and handicapped contributes to the achievement of many medical, social, educational, and vocational rehabilitation goals.

4. Recreation for the ill and handicapped, when provided under prescriptive circumstances, can be therapeutic.

Attitudes Toward the Handicapped

One of the most meaningful pieces of research in the area of attitude change and the handicapped is by Herbert Rusalem. The main finding of the project was that if you want to develop more positive attitudes toward the handicapped, you structure a positive situation in which a capable, well-dressed, personable handicapped person performs a particular skill in a competent manner in the presence of non-handicapped persons. Many of you can point to illustrations from classroom and field experiences where such a situation has produced positive attitudinal change in the non-handicapped. Some of the features of this type of experience are interaction and direct personal contact. This contrasts with the traditional kinds of non-involvement techniques (literature and films and money-giving) which have been used to change attitudes but which require little personal involvement and commitment and, I believe, have limited results.

There are other factors in attitude change--reinforcers, rewards, and regenerators. People continue to do something--even something destructive like smoking--because they obtain something important from their actions. Until they find something more positive or until that which is obtained ceases to have a positive value, people will continue a particular behavior.

We, as professionals, know the power of attitudes; we have perceptions and insights; and we have the benefit of some research. We must now assemble available information into a framework for dealing with attitudes toward the ill and handicapped.

Facilitation, Facilitators, and Facilitator Syndromes

The handicapped themselves are a target of attitudinal change efforts, as are their families, peers and helpers. Also included as target groups are decision- and policy-makers (board and commission members, city council persons), legislators, and professional personnel of all types. These individuals may be termed facilitators--persons who perform a distinct role or function in relation to recreation and leisure participation by the ill and handicapped. In spite of the fact that the term "facilitator" has a positive connotation, the individuals in this group may either help or hinder the handicapped. It is because of their potential to hinder that their attitudes are important.

Specific behaviors and behavior patterns result from the individual's philosophy-values-attitudes-attitude sets. A number of these attitude sets and resultant behavior are encountered on a continuing basis. Among these attitude sets we find: the Futility Syndrome ("What can I do to help? The situation is impossible."); the Leprosy Syndrome ("If I touch them, I may get it!"); and the Training Syndrome ("I can't take handicapped people into my program. I don't have the trained staff to handle epileptic fits, convulsions, slobbering, poor speech.") There are numerous other explanations for why inclusion of handicapped persons is unthinkable and why a particular negative attitude toward them is justified.

Building a Process Model to Support Positive Facilitation of Leisure for Handicapped Persons

It is desirable for recreation and leisure facilitators and peers to exercise their discretionary and regulatory powers to facilitate participation by the handicapped in leisure time activities. There are several concerns to identify at the outset: First, what attitudes exist at the present time? Second, what process barriers are implicit in their current behavior? Third, what alternative behaviors will facilitate the desired participation by the ill and handicapped? Fourth, how can attitudes be changed to initiate new behavior models? And last, what positive reinforcements or payoff features can be built into the new model to keep it going?

For example, consider working with the general public in employing the handicapped. A counselor may place one handicapped person in a job, and the Mayor's Committee on Employment of the Handicapped gives an award. That employer may hire one more handicapped person, but, most probably, the employment of the handicapped will taper off unless there is a further stimulus. There is generally insufficient continued stimulation to effect regeneration of effort.

Something I think we have on our side is the very positive interpersonal experience that can evolve from recreation. Recreation offers many unique interpersonal satisfactions and rewards. I believe that recreation, cultural activities, and leisure hold enormous potential. In terms of attitude change, I think we should pay close attention to the public demonstrations of wheelchair athletics, which have created a significant change in the attitude which many people have about the handicapped; hopefully this attitude change will lead to some changes in behavior. People have also been tremendously influenced by the Special Olympics, the Cultural Festivals for the Handicapped, and the National Theatre for the Deaf.

I think that our work related to attitudes and behavior has to lead us toward a general goal: Allowing the handicapped recreational, cultural, and leisure opportunity and experience on an equal basis, at pariety, with the non-handicapped. This idea stems from my beliefs about human rights and normalization; that is, enabling the handicapped to live in a regular lifestyle and enjoy the normative benefits of education, recreation, employment, and other activities their non-handicapped peers take for granted.

I think that any research, any study regarding attitudes, should contribute to and have a direct relationship with actual behavioral changes that increase both the potential for and the actual participation of the ill and handicapped in recreation and leisure activities. We should be concerned wth a methodology to effect change in facilitators to alter and reinforce their positive behavior for this change.

One of the manifestations of public attitude is the legislation which affects service delivery to handicapped persons. We must all be involved in some way in the political arena. We need to stay in the forefront regarding Federal and state legislation, programs, and funding. In many ways these issues involve attitudes, and the overt and covert negative facilitation attitudes at the Federal and national level are now affecting millions negatively; they can affect millions positively, if they can be changed.

Persuasion and Guidelines Versus Laws and Enforcement

When we deal with attitudes I think there are two primary approaches available to us. One general area is the persuasion approach of research, education, and group process. Another approach is the authoritarian approach of law, regulation, and enforcement. I believe there are limitations to what we can do through enforcement, law, and legislation. Martin Luther King had a tough time in the South, but he said he didn't know what hatred was until he walked into Chicago to experience the outpouring of venom. So I think we have to be careful with enforcement. Quotas are touchy; but, nevertheless, there are many issues that call for and demand enforcement. For instance, one such issue is air travel by the handicapped. Carriers are simply saying, "Handicapped stay off because you're going to cause problems." The airlines refuse to look at the research. They refuse to look at the humanistic issues involved and the impracticality of what they're saying--they are simply going to force handicapped people to stay off airplanes. The only way to fight this is by legislation and regulation.

The main point is that persuasion is usually the best means of changing people from being negative facilitators to positive facilitators. However, we should be mindful that it is only through law that many important basic social advances have been made. Recent dramatic examples are the current Civil Rights Movement which was initiated by a Supreme Court decision and the battles that are being won through court action in equal educational opportunity for all, including the handicapped.

My second point is: If we intend ultimately to be positive facilitators in the lives of the handicapped in the future, we are going to have to make a number of profound changes in our attitudes about ourselves, our attitudes about the importance of recreation and leisure in the lives of the ill and handicapped, and our attitudes about our roles and functions as a national professional group. In general, recreation and park professionals and those specialists in the area of therapeutic recreation have a very passive pattern of involvement with issues, with legislation, with Federal agencies. Thus, if we are talking about being positive facilitators of recreation for the handicapped, there are a number of profound attitudinal changes that will necessarily have to start with us. This, obviously, is the point where philosophy (personal and professional) starts to interrelate with values and attitudes and behavior. This is where our own "free will" has its say; but, it is important that we take a good look at ourselves at the same time in the mirror of reality.

Liabilities to Recreation

I think we should recognize that we are dealing with two low-esteem areas: recreation/leisure and the handicapped themselves. Generally speaking, recreation/leisure has not been a high priority area. People are not in favor of allocating money for recreation for poor, inner city residents. Recreation programs in correctional institutions are grossly inadequate. Many teachers, doctors, nurses, and health administrators have negative attitudes about recreation and leisure: "Oh, you're in recreation and leisure." "I don't have time for leisure and that kind of stuff." The handicapped as people are held in low esteem. For many reasons, the general public, planners, teachers, and other groups want to reject the idea of disease and disability. We want to think only in terms of success, winning, beauty, and other "desirable" traits; we don't want to think in terms of failure, losing, or disability. We don't want to deal with reality.

We have, then, a situation which makes it doubly hard to sell recreation for the handicapped within our own profession, to other professions, and to the public at large. I don't intend to discourage; rather, I wish to put the matter realistically.

Winston Churchill said, "We build our houses and then our houses build us." Our conditioning creates our attitudes which are mothers of need, which in turn form our attitudes. We need to break this negative cycle and create more positive attitudes.

Only the Specialist Will Do the Job

As we speculate about strategies to achieve attitude and behavior change as a prelude to planning and implementing recreation programs for the handicapped, it is essential that we take a realistic look at who and what helps or hinders our efforts. Those of us who are concerned basically with the handicapped must be very cautious about those people who are "part-timers" in helping the handicapped and about those people who are "low priority lip servicers" for the handicapped.

These words of caution are needed as we think about our strategies for program development. I believe that sometimes I can be misled by the propaganda of the generalists in education or recreation. The generalists will say about individualized therapeutic recreation or special education, "Well, that's just good recreation and that's just good education. That's really what I had in mind all the time. Just throw it back to me and I'll take care of it inside of my general classroom or playground." I don't believe that the generalist is going to take care of it.

I think that it is only the person who is singularly committed to the ill and the handicapped who will respond to the needs of the ill and handicapped. I think it is only the program that is singularly committed to the ill and the handicapped that will do an effective job. I don't have confidence in the generalists to take care of the issues I'm concerned about. I have come to have faith only in the person or organization that says, "The handicapped are Number One priority." I find that the handicapped are either Number One or, essentially, they get lost. I base this statement on my personal experience with the U.S. Office of Consumer Affairs, with the U.S. Bureau of Outdoor Recreation, and with various national organizations and associations concerned with recreation.

Action Now

The general public and professional helpers need to recognize whatever negative attitudes they hold toward the handicapped and face them and move away from platitudes. People and professionals must first embrace the "idea" through a platitude, but too many people and too many professionals believe that they have done their bit when they have embraced the platitude. I would cite as a prime example of this the "let's adopt a resolution blessing the handicapped and forget about having any operative paragraphs" approach. I believe that we could find organizations and agencies whose primary goal is serving the handicapped but which do not employ any handicapped in their ranks. (The same can be said relative to minorities.) Or, they hire one token representative of the group. And, we can find plenty of organizations that have adopted pious resolutions about employing the handicapped; but be assured that they do not and will not employ the handicapped.

So, I believe that we must be realistic in planning any strategies designed to ameliorate the condition of the handicapped. Many of those who would want to be known as "the best friends of the handicapped" are in fact the "worst enemies of the handicapped" because their "kind words and charitable thoughts" belie their actual inaction or negative action toward the ill and handicapped. This inaction as much as negative action is what locks the ill and handicapped out of education, out of employment, out of recreation, out of cultural participation, out of social involvement. It locks the ill and handicapped out of the rights to equal opportunity under the law.

I propose that even as the public and professionals face their negative attitudes they provide the programs and services required by the handicapped and work toward changing these attitudes. So, let the positive feelings grow out of interaction, let the positive feelings come at a future date while today we assure the ill and handicapped of their rights as human beings and as citizens. In A Plea for the Friendless Present, Wilbur Dick Nesbit said, "Who waits upon the when and how/Remains forever in the rear."

Granted we need insight, and the means to insight and knowledge is research. But, while we conduct our research and write our papers, let us be mindful that we are the leadership for recreation for the ill and handicapped and that each of us must be assertive within our professions, with our state park and recreation organizations and state health, physical education and recreation associations, and with our elected public officials at the local, county, state and national levels. It is quite clear that action is needed to meet the enormous needs that surround us. Research is needed to answer the questions and solve the problems. Let's not confuse the need for action and the need for research. Let's get the knowledge we need to act; but, let's act on what we do know. We have the responsibility to do both now.

Appendix A

Facilitation

"Facilitation" and "facilitator" refer to an action or person impacting to "ease any action, operation, or course of conduct." Facilitation or facilitators cannot be neutral; they are either negative or positive. Positive facilitation or a positive facilitator acts to promote, ease, or assist the handicapped person in attaining, participating, achieving; conversely, negative facilitation or facilitators overtly or covertly fail to promote, ease, or assist the handicapped person in attaining, participating, or achieving. Denial of employment to a person because of a physical handicap, for example, is "overt negative facilitation." The failure to hire any person who has a handicap is "covert negative facilitation." If the person, condition, or situation doesn't provide "positive facilitation," it is by definition "negative facilitation." There is no neutral or middle ground. "If you are not for the handicapped or handicapped person, then you are against the handicapped person."

People as Facilitators

Obviously, everyone is a facilitator in some way. However, the following represent those individuals who have a major impact upon handicapped persons: the handicapped themselves and their families; peers; public helpers (librarians, cab drivers); decision and policy makers; professional personnel; and recreation personnel.

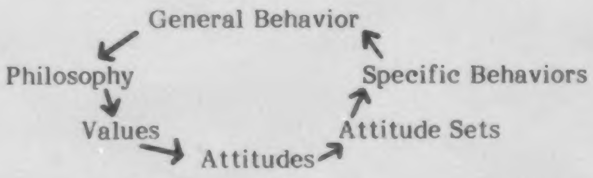
Conditions as Facilitators

The same general principles apply to "conditions" as to facilitators. The conditions referred to are laws, regulations, guidelines, policies, practices (unwritten regulations or policies), as well as buildings, equipment, clothing, etc.

Appendix B

Attitude Cycle

Attitudes should be conceived of in relation to the preconditions which form them, actions that result from them, and in turn, the influence that behavior has in reinforcing philosophy and attitudes.



The first level of involvement is to seek to modify each factor in the attitude cycle through logic, persuasion, information, etc. If a factor fails to respond to persuasion, enforcement in terms of laws, legislation, and court orders is called for. It should be recognized that whether by persuasion or enforcement, the cycle must be broken from negative facilitation to positive facilitation and that reinforcers of and for positive facilitation must be built into the specific and general behavior.

Appendix C

Programmatic Analysis of Facilitator Actions/Attitudes

The following questions can be used in analyzing specific behaviors, the attitudes that yield these behaviors, and possible counteractions to change attitudes/behavior.

1. What is the desired behavior of the handicapped person or group—entry to a building, membership in a group?
2. What process barriers (physical, social, etc.) block the desired behavior?
3. What is the alternative behavior?
4. What Negative Facilitation (physical barriers, social barriers, lack of social acceptance, reactions, etc.) blocks the desired behavior?
5. What Positive Facilitation will allow desired behavior by handicapped persons?
6. What attitudes, values, etc. are involved in the Negative Facilitation; in the alternative Positive Facilitation?
7. What steps (persuasion, enforcement, demonstration, etc.) can be taken to modify attitudes and/or behavior?
8. When new or modified attitude/behavior is demonstrated through Positive Facilitation? What reinforcement, reward, etc. can be perpetuated in order to maintain the Positive Facilitator attitude/behavior?

Reactor: Gerald O'Morrow
Professor
School of Health, Physical Education and Recreation
Indiana State University, Terre Haute

When we ask ourselves why people behave as they do we are dealing with attitudes. An attitude is a complex factor which cannot be wholly described; it is the sum total of a person's inclinations and feelings, prejudices or biases, preconceived notions, ideas, fears, and convictions. Attitudes usually result from opinions. However, there is need for caution: Neither opinions nor overt acts constitute in any sense an infallible guide to attitudes; they serve as indices of attitude.

The word "handicapped" has an unfavorable connotation, and very few adults will accept the label. A person will consider a handicap as a hurdle to be overcome or bypassed and not as an excuse for self-pity. However, many people who live successfully with their condition nevertheless find their lives restricted for reasons beyond their control; the physical or mental difficulties which may satisfy the dictionary definition of "handicap" are often not the main problems which the person has to overcome on a day-to-day basis. Some examples come to mind. The veteran who has become acclimated to life in a wheelchair but can't get on a bus; the epileptic who isn't allowed to drive in some states; and the retarded adult who is without the acceptance and love of his or her own family--all are faced by external limiting factors. These situations illustrate that the individual has accepted his handicap, but society has not; that too often the handicap is the focus of attention rather than the "normal" qualities of an individual.

That society has not accepted the handicapped is difficult to understand since everybody is handicapped, to a greater or lesser degree. A very wise person once wrote: "Every human person is a mystery that must be learned slowly, reverting with care, tenderness and pain, and is never learned completely." Since this statement obviously admits to no exception, it applies as much to those who are handicapped as to those who are considered "normal." A handicapped person is no more or less a mystery than a "normal" man or woman, nor is it more or less difficult to learn about him or her.

In our society, the problems faced by the mentally and physically disabled are many and complex. In the not too distant past, those disabled because of illness or age constituted a social burden because they could not contribute their share to the group welfare. As a result, certain attitudes and practices toward the disabled seem to be a part of our culture.

The cultural pattern of any individual or group is a kind of blueprint of life activities. The individual learns this blueprint, largely unconsciously, through childhood experiences in the family and contacts with teachers, playmates, church members, neighbors, fellow workers, and friends. As Knutson (1961) has written:

> Present knowledge concerning the role of heredity and environment in human development leads to an unequivocal rejection of instinct explanation for social motivation, social beliefs, social attitudes, or social behavior. The child is not born with a set of values, nor with a pattern of goals, nor with a set of rules of human conduct, nor with a sense of love, affection, or trust for other human beings. These are man-made things that are imparted to him in early childhood. Children learn to be clean or to be dirty, to be active or sloven, to be cooperative or competitive, to be submissive or aggressive, to be tender or cruel. They learn to love and to hate, to share and to steal, to run or to fight. Their health behaviors, no less than other behaviors, are acquired.

By the time the individual reaches adulthood he or she has a vast amount of detailed knowledge about how to behave in and respond to situations similar to those in which he or she has grown up. The person also has a system of values by which to judge what is pleasant, desirable, appropriate, right, or the reverse. These values reflect the attitudes of his or her group.

This blueprint has great utility. Were it not for these guidelines a person might spend significant time consciously making hundreds of minor decisions that are now made automatically. The person is freed to deal with supposedly more important matters. On the other hand, if a person has been thoroughly socialized into the group cultural patterns, others often experience great difficulty in breaking him or her of even the most minor patterns.

As a result of these blueprints, we find a variety of attitudes and consequent behaviors toward the handicapped. "Normal" persons regard them as different and strange, devalue their abilities, patronize them, attribute to them negative character traits, have both high and low expectations of them, reject them, perceive them in social and economic stereotypes, overprotect them, assume mismanagement by their parents, believe that they are filled with sadness and self-pity, and somehow connect "punishment for sins" with their disability. The disabled, themselves, view other disabled as different.

We are, therefore, at the crossroads of an intellectual decision. Either we are going to continue our present negative attitude toward the handicapped or we are going to refocus our energies on helping the handicapped person develop as a human being. Either we are going to persist in constricting and enslaving the handicapped through negligence or we are going to establish the means and opportunity for them to become more independent.

Further, we speak of giving all persons "equality of opportunity, " when it would be better to say that we should see that all obtain maximum opportunity. A person is most free when he or she has the knowledge and the power to make constructive decisions and utilize the fullest opportunity for choice. A person is most free when he or she has maximum information about choices. Yet, the handicapped person is seldom provided with sufficient information or opportunities to make the most advantageous choices. Then in guilt, society attempts to do something, but frequently makes the situation worse.

It is important to remember that:

- unless the handicap is a severe mental one, a handicapped person has the same urges, drives, ambitions, goals, fears, doubts, and anxieties as the normal person.
- the handicapped person wishes to live a normal life and compete with "normal" people.
- most handicapped adults have learned to compensate, at least to some degree. They welcome, in my experience, useful suggestions regarding the compensation process, especially from professionals.
- the reasonably well-adjusted handicapped adult knows his or her limitations and has learned to live with and work within them, and resents being overprotected. Pity is his or her worst enemy.

Mental and physical limitations may produce suffering and frustration, but the limitations imposed by society's evaluative attitudes toward the handicapped affect their overall feelings about themselves. People strive to be accepted, to be important in the lives of others, and to have others count positively in their life. As long as disability is considered shameful and linked wiht inferiority, realistic acceptance of one's position and one's self is precluded. As long as a physically able person maintains this linkage, he or she is ill-prepared to meet disability. The implications appear clear: Society must develop positive and supportive attitudes toward those who are considered handicapped. It must encourage, especially in its legislation, self-determination and independence. Society can do this most effectively when it concentrates on personhood and not handicap.

Since World War II, legislative emphasis on civil rights for all people has increased. We have witnessed the Universal Declaration of Human Rights adopted in 1948 by the United Nations, the Patient's Bill of Rights published by the American Hospital Association (1973), a formulation of the rights of the mentally ill and retarded (Mental Health Law Project, 1973), the Bill of Rights for the Disabled (Abramson and Kutner, 1972), and the Bill of Rights for the Handicapped (United Cerebral Palsy Association, 1973), as well as an international conference on legislation concerned with the disabled.

Associated with legislation is legal action. As a result of federal and state Civil Rights Acts, radical changes have occurred in the treatment and acceptance of minority groups and others. There is evidence to indicate that with integration of handicapped persons into the mainstream of society have come major improvements in attitudes on the part of many. We have seen a greater involvement of the handicapped in leadership positions and an increased effort on their part to speak out and act on their own behalf.

It might appear that merely bringing people together will automatically improve the attitudes of each toward the other. However, this is not always the case. The Scott (1969) study of sighted and blind persons indicates that it is not enough to bring sighted and blind people together and concludes that sighted people have the know-how to deal with blind people and overcome their own awkwardness and ambiguity.

Mass media education through advertising agencies is another important educational approach. The media have extraordinary power to influence, but there are several considerations that must be kept in mind. First, dealing with an abstract such as prejudice is different from selling a bar of soap. Second, to rely on infrequent messages of limited informational value is uncertain. Rather, I would second the remarks of Wright (1974): For mass media techniques to be effective, the educational information should be integrated into the social context of the situation being presented. However, formal education provides the best possible opportunity, in most instances, for continuity, depth, influence, and substantial recall.

What can be said about the need for research other than more should be done and what has been done should be reevaluated. More research is needed in different contexts and with different subjects. Undoubtedly, further consideration of implications will yield additional leads for developing wholesome attitudes toward disability. Understanding underlying conditions within a framework of ideological and ethical prescriptions may provide the soundest guides for desired change. An essential problem remains: understanding the process of change itself.

To affirm that the present changing attitudes are durable allow me to conclude with a quote from Wright (1973):

> The lives of handicapped people are inextricably a part of a much wider socio-economic-political and ethical society affecting the lives of all people. It is therefore essential for all of us to remain vigilant to protect and extend the hard-won gains of recent decades and to be ready to counter undermining forces. Vigilance requires thoughtful action guided by continuing reevaluation of the effectiveness of present efforts and alertness to needs of changing conditions.

References

Abramson, A. S. and Kutner, B. 1972. "A Bill of Rights for the Disabled." Arch. Phys. Med. and Rehabilitation, Vol. 53, No. 3: 99-100.

American Hospital Association. 1973. "A Patient's Bill of Rights." Chicago: AHA.

"First International Conference on Legislation Concerning the Disabled." 1972. International Rehabilitation Review, Vol. 23, No. 2: 18-19, 23.

Knutson, A. L. 1961. "Psychological Basis of Human Behavior." American Journal of Public Health, Vol. 51: 1704.

Mental Health Law Project. 1973. Basic Rights of the Mentally Handicapped. Washington, D. C. : Mental Health Law Project.

Scott, R. A. 1969. The Making of a Blind Person. New York: Russell Sage Foundation.

United Cerebral Palsy Association. 1973. "A Bill of Rights for the Handicapped." *Crusader*, Vol. 3: 1-4.

Wright, B. A. 1973. "Changes in Attitudes Toward People with Handicaps." *Rehabilitation Literature*, Vol. 34, No. 12: 357.

______. 1974. Personal remarks to the Professional Advisory Council, the National Easter Seal Society for Crippled Children and Adults, Chicago.

Bibliography

Allport, G. 1954. *The Nature of Prejudice*. Reading, Massachusetts: Addison-Wesley.

Baker, R. G.; Wright, B. A.; Meyerson, L.; and Gonick, M. 1953. "Adjustment to Physical Handicap and Illness: A Survey of the Social Psychology of Physique and Disability." (rev. ed.) *Social Science Research Council Bulletin*, No. 55.

Bettelheim, B. and Janowitz, M. 1964. *Social Change and Prejudice*. New York: Free Press.

Carnes, G. D. 1971. "Prejudice in Theoretical Perspective." (A review of the book *The Authoritarian Personality*). *Rehabilitation Literature*, Vol. 32, No. 1: 6-15, 18.

Lyspman, L. 1973. *Attitudes Toward the Handicapped*. Springfield, Illinois: Charles C. Thomas.

Selznick, G. and Steinberg, S. 1969. *The Tenacity of Prejudice*. New York: Harper and Row Publishers.

Siller, J.; Ferguson, L. T.; Chipman, A.; and Vann, D. H. 1967. *Studies in Reactions to Disability XI: Attitudes of the Nondisabled Toward the Physically Disabled*. New York: New York University, School of Education.

Telford, C. W. and Sawrey, J. M. 1972. *The Exceptional Individual* (2nd ed.). Englewood Cliffs, New Jersey: Prentice-Hall.

Wright, B. A. 1960. *Physical Disability: A Psychological Approach*. New York: Harper and Row Publishers.

______. 1972. "A Value-Laden Beliefs and Principles for Rehabilitation Psychology." *Rehabilitation Psychology*, Vol. 19, No. 1: 38-45.

Yuker, H. E.; Block, J. R.; and Young, J. H. 1966. *Measurement of Attitudes Toward Disabled Persons*. Albertson, New York: Human Resources Center.

Reactor: Fred Humphrey
Associate Professor
Recreation and Leisure Studies Program
Temple University, Philadelphia

One of the Philadelphia newspapers carried a letter to the editor about the financing of a White House swimming pool for President Ford. It included a statement representative of a segment of public opinion--"If the President needs to have this pool installed for reasons of physical therapy or the like, I might be more inclined to be sympathetic, but not simply for recreational purposes."

In our discussion of attitudes we should look at the definition of "attitude." Since theories of attitudinal change are composed of words, they can only be as precise as the words used to describe them. Some say that an attitude is an implicit (not directly observable) drive producing a response considered socially significant in the individual's society. This perspective includes more than verbal responses. This drive may affect overt behavior, but it is not overt behavior. The response may be conscious or unconscious, distinctly verbal or only vaguely proprioceptive. It is important to recognize the behavioral side, the functional side, of the broader concept of attitude as well as the verbally-oriented paper and pencil side we so frequently restrict ourselves to.

In the 1940's or 1950's Hyman and Merton formulated the idea of a "reference group"--the group to which a person looks for norms and standards. They made the point very clear that an individual need not be a member of a reference group to consider himself a participating member of a particular reference group or to use a collection of people as a reference group. It is necessary, therefore, to distinguish between membership groups and reference groups in a discussion of th effect of reference groups on attitude formation.

M. Brewster Smith writes about the categories of attitude formation: (1) object appraisal, (2) social adjustment, and (3) externalization. We may be able to utilize his categories as guidelines when shaping our research priorities. These elements do not necessarily follow a chronological sequence; there may be interaction among them.

Object appraisal is defined as testing reality to assess its relevance to self. Here we may find our relationship with the handicapped. This technique is illustrated by flight regulations, wheelchair sports programs, and Special Olympics. These examples show how the separation is maintained between the handicapped and the able-bodied.

The social adjustment element refers to a role attitudes play in facilitating, disrupting, or simply maintaining an individual's relations with others. The emphasis is not on what the object is like, i.e., the object appraisal, but rather on how other people regard the object. Externalization refers to the psychological component or my response to an external event if I respond to an external event in a way that is colored by unresolved inner problems. This is certainly a critical issue in attitudinal change.

Campbell looks at attitudes as a special case of a more general category of acquired behavioral disposition. I think this is a positive approach if this assumption or concept is correct: If attitudes are acquired they can be changed. And he focuses on the problem of the informational basis and the six different ways of acquiring information. I think we can look at these as areas in which to identify requests for proposals. This first, obviously, is what is going on; we don't need funding for that--it's blind trial and error. The second is the general perception. The third is the perception of others' responses. The fourth is perceptions of the outcomes of others' explorations. The fifth is verbal instructions relevant to behavior. The last is verbal instructions about the object's characteristics. We have no evidence that these modes ae psychologically equipped. In other words, we haven't delved into this area of attitudinal formation and attitude change to that extensive a degree.

In his book C Unit: Community in Prison, Studt mentions "salience of the microworld" as one of the basic rehabilitation principles. I often begin my university classes with this statement and ask the students what meaning they find in it. They usually respond after a period of discussion that it points to the place we must start on our deliberations of attitudinal change.

STATE OF THE ART:

Activity Analysis

Presentor: Carol A. Peterson*

Reactors: Doris Berryman, John Lewko

---

*The paper presented by Dr. Peterson was coauthored by Janet A. Wessel and Claudia Knowles, Michigan State University, East Lansing.

Presentor: Carol A. Peterson
Assistant Professor
Department of Health, Physical Education and Recreation
Michigan State University, East Lansing

"Activity Analysis and Prescriptive Programming: Purpose, Procedures, Applications"

I. Activity Analysis

Introduction

Activity analysis is one of many terms utilized in the field of therapeutic recreation that has multiple meanings. The term rarely appears in the body of professional literature and thus has not claimed the amount of attention necessary to unify its definition. The contexts in which the term appears most frequently are:

1. To connote a systematic procedure of breaking down a given activity for the purpose of understanding its inherent qualities, and
2. To describe a process of determining an individual's current activity repertoire for the purpose of program development or leisure planning.

Over the past several decades, the field of therapeutic recreation (and recreation in general) has focused its attention on such topics as personnel qualifications and preparation, program design, delivery system approaches, evaluation, funding, facilities, and a host of other concerns related to the improved delivery of services. Much of the effort has focused on ancillary issues surrounding the delivery system. Indeed, this attention has improved the level of service and has increased the influence of the profession in the variety of delivery settings. Yet, little research or attention has been specifically geared toward furthering comprehension of the dynamics of leisure and recreation activities themselves. Activity analysis addresses itself to this goal.

Toward a Definition

Activity analysis implies a breaking down of a given activity for examination. At the core of this concept is the fact that each activity has inherent characteristics and performance requirements which, if understood, would lead to a variety of outcomes, among which would be:

1. A better comprehension of expected outcomes of participation.
2. A greater understanding of the activity itself which would give direction to leadership and allow development of instructional and intervention techniques.

3. A greater understanding of the level and complexity of the components of the activity which can be compared with the functional level of an individual or group to determine the appropriateness of the activity.

4. An understanding of the elements or components of the activity which would direct the modification or adaptation of that activity for a specific individual or group in question.

5. Information regarding the appropriateness of an activity in moving the individual toward the stated desired behavioral outcome (if behavioral goals and objectives are used).

Participation requirements and demands of activities vary considerably. The results of a casual overview of a given activity are often misleading; the complexity of many activities is frequently hidden in the assumed familiarity. Thus, an activity such as "checkers" is considered simple because it is so well known, while, in fact, the game requires advanced cognitive requirements, including evaluation and decision-making (strategy) as well as the recall of countless rules governing the play. It is this type of information which results in systematic and comprehensive activity analysis.

Analysis is more difficult for some activities than for others. For example, games and sports of a competitive nature requiring exact rules and regulations are easier to analyze than unstructured and non-competitive activities. Activities in this latter group would vary in their analysis outcomes according to the context and situation surrounding the activity. Thus, some analysis procedures can only be applied with validity and reliability to games and sports; other procedures, designed to be used only in relation to a specific context (population, setting, leadership), require that the analysis always be situational.

Various methods of analyzing and classifying activities exist. The following section will identify the dominant models. Since the factors used as basic constructs vary considerably for each of the models, one single definition of activity analysis is difficult at best. For the purpose of this paper the following definition is offered for consideration:

> Activity analysis is a process which involves the systematic application of selected sets of constructs and variables to breakdown and examine a given activity to determine the behavioral requirements inherent for successful participation. This process provides information basic to selecting, modifying, sequencing, and implementing activities for meeting or modifying predetermined goals and objectives.

State of the Art

Because therapeutic recreation is concerned with achieving behavior change through the utilization of activities, it might be assumed that activity analysis is used as a matter of routine. However, for the most part, activities have been taken for granted. Experimentation with leadership techniques/intervention methods has provided much information related to the improvement of service. Studies related to the nature and type of clients and the structure of groups have also yielded invaluable data. Unfortunately, little focus has been directed to the dynamics of the activities themselves. The question still arises, "Which activities are best for which purpose?" In working with special populations it is imperative to build a more sophisticated body of knowledge related to the application of activities for specific behavior change and improvement. This implies the utilization of activity analysis techniques.

Whether or not there exists sufficient information related to activity analysis remains to be seen. However, utilization of a systematic activity analysis technique is not a widespread phenomenon, which might be due to a variety of factors, including: (1) lack of knowledge related to the benefits of utilizing such procedures; (2) lack of knowledge related to locating information regarding existing procedures; and (3) inadequate preparation to utilize existing procedures.

On the other hand, existing procedures need to be refined, validated, and checked for reliability. Some techniques could probably be eliminated while others could stand expansion. The fact remains that activity analysis is still in its infancy. Hopefully, increased efforts will be directed to this area of need, and the outcome will be some standardized procedures which can then be unified and applied within the field and taught in professional preparation programs.

Identification and Description of Conceptual Models

The literature contains countless descriptions of methods related to activity classification, many of which are presented more as methods of defining play or recreation than as ways of establishing models for activity analysis. Many models are useless in analyzing the inherent characteristics of a given activity because social or motivation variables are used for the different categories. As a result, any given activity could fall into numerous divisions depending upon the attitude of the participant. For a model to be useful, its categories should be mutually exclusive. In addition, the model should focus on activity itself and not on the situation surrounding the participant.

The following models describe existing procedures. The reader is directed to the original source document for complete information about each model.

1. CALLOIS (1955)

This model states that it is a "description and system of classification of games." However, its content seems to go beyond the realm of games and into a broader arena of other recreation/leisure activities. Four basic headings are used:

a. Agon--competition is dominant
b. Alea--chance or luck is paramount
c. Mimicry—focus on simulation
d. Ilinx--pursuit of vertigo (disequilibrium) is the dominant factor

Another dimension is added which can then be applied to any of the previous four areas. This is referred to as the *paidia-ludus* continuum: *Paidia* refers to activities which are unstructured, free of control, full of improvisation and exuberance; *Ludus* refers to activities which are characterized by discipline, control, and rigid rules and regulations.

This model primarily characterizes the nature of a given activity when it is appropriately classified by use of the six variables. Although it would enable some prediction of participation outcomes, it appears limited in providing information regarding the requirements and demands of involvement.

2. McINTOSH (1963)

This model focuses on sports, but expands the concept to deal with non-competitive activities. In addition, the classification model states that it depends more upon motive and the nature of the satisfaction which the sport gives than it does on the activity itself. This model has four categories:

a. Games and sports which enable an individual or team to demonstrate superiority over an opponent or other team, based on some exercise of skill.

b. Activities which involve personal or group combat, physical contact through body or indirectly through a weapon.

c. Activities which are based on conquest of some element of the natural environment.

d. Activities which enable expression of beauty through human movement.

This model is severely limited in that countless recreation activities--crafts and music, for example--do not fall in any of the four categories. Had McIntosh stayed with sports and defined them as requiring competitive action, he might have been able to come up with inclusive categories for sports although he would have had to omit three and four. This model provides little information to the individual seeking information for activity analysis.

3. KENYON (1966)

This model is designed to include only *physical* activity regardless of absence or presence of competition. It categorizes activities as those which (a) provide a medium for social intercourse, (b) benefit health and fitness, (c) relate to the pursuit of vertigo (thrill through speed, sudden change of direction, etc.), (d) allow a release of tension, and (e) serve as ascetic experiences demanding delayed gratification.

This model gives some indication of the nature and outcomes of participation. Its major flaw is that any given activity could fall into any one of the categories depending upon the individual involved.

4. PETRIE (1970)

This model combines elements of the previous models. Its focus remains on classification of physical activity as: (a) a way of pursuing personal risk, thrills, or danger; (b) a way of meeting people in social situations; (c) a match of skill in the use of a weapon against target or quarry; (d) a way of improving the health or fitness of the body; (e) a way of involving the individual against "chance" or "luck" in an attempt to win an object or money; (f) a way of having fun and for pure enjoyment; (g) a way of expressing ideas and feelings in movement; (h) competition involving skill as the predominant part of performance; (i) competition involving combat as the predominant part of the performance; and (j) competition against part of the natural environment.

This model also represents the problem of focusing on the participant's perception of involvement rather than upon the analysis of the activity itself. As a result, categories are not mutually exclusive. A specific activity could easily fall into more than one category, thus limiting the value of the model for activity analysis purposes. In addition, the model only purports to deal with physical activity.

5. AVEDON (1971)

This model presents a method of determining the various elements of games. Each of the 10 categories provides a further breakdown for the purpose of analyzing the existing components of a given game.

a. Purpose of the game: aim or goal, intent, the raison d'etre. Example: checkmate one's opponent (chess).

b. Procedure for action: specific operations, required courses of action, method of play. Example: roll dice, move counter in clockwise direction around board the number of spaces indicated on dice. Act in manner indicated by last space on which counter lands, i.e., take a chance, pay rent, go to jail, etc. (Monopoly).

c. Rules governing action: fixed principles that determine conduct and standards for behavior. Example: go back where you were, you didn't say, "May I?" (Giant Steps).

d. Number of required participants: stated minimum or maximum number of persons needed for action to take place. Example: minimum of two required, no stated maximum (hide-and-go-seek).

e. Roles of participants: indicated functions and status. Example: goalkeeper, center, others. Each player has a different role (hockey).

f. Results or pay-off: values assigned to the outcome of the action. Example: money (black-jack).

g. Abilities and skills required for action: aspects of the three behavioral domains (cognitive, sensory-motor, affective) utilized in a given activity. (See Avedon for full breakdown.)

h. Interaction patterns: (See Avedon for full description.) (1) Intra-individual, (2) Extra-individual, (3) Aggregate, (4) Inter-individual, (5) Unilateral, (6) Multi-lateral, (7) Intra-group, (8) Inter-group.

i. Physical setting and environmental requirements: (1) Physical setting in which action takes place. Example: four-walled court (squash). (2) Environmental requirements—natural circumstances which are indispensable or obligatory. Example: pool (water polo).

j. Required equipment: man-made or natural artifacts employed in the course of action. Example: rackets, bird, net (badminton).

This model appears to be most useful in activity analysis because of its comprehensive nature. Although it is limited to games, which implies structure and competition, many categories have implications for analysis of activities other than games. This model focuses on the activity itself and therefore provides a greater opportunity for accurate analysis.

Avedon's model assumes that activity analysis is not simply a procedure of placing an activity into a category; rather it indicates a necessity of analyzing activities within categories for further comprehension of the inherent qualities. Elements "abilities and skills required for action" and "interaction patterns" appear to be most useful for this purpose. Avedon states that any activity requires action in all three behavioral domains (cognitive, sensory-motor, and affective). In addition, a given activity must be analyzed for interaction patterns between participant and object variables.

Substantial work has been done by others in expanding aspects of the elements found in Avedon's model. In the sensory-motor domain, the following titles serve as examples:

- Analysis of Human Motion (Scott)
- Science & Medicine of Exercise & Sport (Johnson & Buskirk, editors)
- International Research in Sport & Physical Education (Jokl and Simm, editors)
- Efficiency of Human Movement (Broer)
- Kinesiology (Duvall)
- Applied Kinesiology (Jensen & Schultz)

Specific and comprehensive breakdowns of activities in regard to physical and anatomical requirements are available for selected sports. Such an analysis of archery appears in Avedon's book (1974) Therapeutic Recreation Service. This 4-page comprehensive breakdown is perhaps too complex for the average practitioner; but it does serve as an example of the level of analysis possible if needed.

Wickwire (1955) provides a much greater service to the field through his breakdown of fundamental movements of general body parts with accompanying activity suggestions for rehabilitation. (Example: Wrist: Radial Deviation--

Muscles involved: Flexor carpi radialis and Extensor carpi radialis longus. Example: carving--grasping tools; string instrument--strumming, plucking; fly casting--throwing rod line out.)

It would appear that the practitioner equipped with some basic anatomy and kinesiology could analyze activities at a level appropriate for therapeutic recreation purposes. More often what is needed is the ability to breakdown a given activity into its different movement patterns for the purpose of sequencing the teaching of the skill or for assessing whether a given participant has the skills to perform the activity.

Analyzing the requirements of a given activity in the cognitive domain appears to be discussed less often than analyzing the physical requirements. Avedon (1974), using Guilford's (1967) model of intellect, provides one of the few references in the literature related to analyzing the different cognitive categories in which recreative activities could be classified. Using this system, one could analyze a given activity and determine which mental functions would be required of the participant. The basic operations are listed as (1) cognition, (2) memory, (3) divergent production, (4) convergent production, and (5) evaluation. Included in the use of this analysis would be breaking the content into categories such as (1) figural, (2) symbolic, (3) semantic, and (4) behavioral.

This analysis appears useful because the cognitive requirements of an activity are often overlooked and only the basic physical demands reviewed. Indeed, many activities used in therapeutic recreation programs could be judged "inappropriate" because of the difficulties associated with cognitive operations. This is especially true when working with mentally retarded, mentally ill, and aging persons.

The least is known about the affective domain as it relates to activity analysis. Avedon (1974) suggests some areas of consideration related to emotional control required for participation, but his breakdown is far from being sufficiently refined for practical application in systematic analysis.

The literature contains diverse material related to social and interactional factors. Much of the material is abstract or descriptive rather than providing specific models or methods of analysis. An example of the social literature is Ulrich's (1968) The Social Matrix of Physical Education.

Again Avedon (1974) provides a specific model for analysis of the interactional patterns found in recreative activities. This breakdown is found in the previous discussion of the Avedon model. This material is highly useful in analyzing the direction and nature of the interaction inherent in a given activity. The application of the information is apparent for sequencing programs for social skill acquisition to improvement. Similarly, the results of analysis can be applied to program planning for a well-balanced program including all established patterns of interaction.

Techniques and Applications: Common Usage

Some practitioners within the field of therapeutic recreation regularly use some method of activity analysis in their daily program planning, implementation, and evaluation. Although there is no standardized method nor one which is predominant, it is possible to list the general areas of activity analysis:

1. Physical requirements of the activity.
2. Cognitive requirements of the activity.
3. Social characteristics of the activity.
4. Administrative or management aspects of conducting the activity.

Rarely are these areas translated into some systematic analysis procedure. More frequently an overview of these factors would be considered prior to selection of a given activity.

While the purposes of analysis vary, the following appear to be the most common reasons for using some sort of analysis:

1. A specific behavioral goal is determined. Analysis of activity would be used to judge the activities' appropriateness relative to the goal or objective.

2. A given program is set. An analysis of activities is conducted to help the leader/teacher/therapist become aware of: (a) possible outcomes of the activities; (b) leadership/instruction techniques needed; (c) implementation considerations; (d) management considerations; and (e) balance and variety.

3. A group of client patients has been assessed relative to functional levels. Analysis of activities would take place to determine if the selected activities are feasible within the given individual's or group's skills and abilities.

4. A program is being planned and focus is upon sequencing of activities for long-term improvement. Analysis of activities would be implemented to insure progression of skills in the various behavioral demains.

It appears that these techniques and applications are not in common usage. It can only be speculated that practitioners lack the knowledge of techniques and systematic approaches to such analysis.

New Directions

Currently in progress is a massive project which has at its core systematic activity analysis linked with computer utilization for program planning. This project is being conducted at New York University under the direction of Dr. Doris Berryman. This BEH-funded project is entitled "System Utilization for Comprehensive Modular Planning of Therapeutic Recreation Services for Disabled Children and Youth." The pilot stage of this project involves the thorough analysis of approximately 300 activities for storage in the computer. Given the assessment of an individual and other variables, the computer will produce a printout of appropriate activities for program consideration.

Although this description is over-simplified, it is easy to envision the massive implications of such a system for program planning. Spinoffs of this project include information for the entire therapeutic recreation profession in terms of unified knowledge related to activity analysis and systematic program planning. The reduction of overlap or duplicated efforts in the field is apparent. The fact that access to this information will be as close as the nearest computer is astounding in its ramifications. In addition to printouts of program activity options, stored information can also be retrieved in other forms; for example, such a system could handle a request for a detailed analysis of a given activity quickly and with much greater detail and accuracy than could a human analyst.

Summary and Recommendations

The need for systematic activity analysis procedures is apparent as the therapeutic recreation profession moves toward a greater focus on goal-oriented program planning. Without adequate analysis techniques for use in the selection of the program content, the process of goal-oriented program development breaks down into useless, non-related segments. It appears that basic information related to methods of activity analysis exists; however, there is definite need for refinement and expansion of this information. Of equal importance is the need to disseminate information related to the value of activity analysis, the most useful techniques, and the role of activity analysis is systematic program planning.

References

Avedon, Elliott M. 1971. "The Structural Elements of Games." In The Study of Games, pp. 419-426. E. M. Avedon and Brian Sutton-Smith, editors. New York: John Wiley and Sons, Inc.

Avedon, Elliott M. 1974. Therapeutic Recreation Service: An Applied Behavioral Science Approach. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Caillois, Roger. 1955. "The Structure and Classification of Games." Diogenes, Vol. 12: 62-75.

Guiford, J. P. 1967. The Nature of Human Intelligence. Toronto: McGraw-Hill Book Company.

Kenyon, Gerald S. 1966. "A Conceptual Model for Characterizing Physical Activity." Unpublished research paper, Department of Physical Education-Men, University of Wisconsin. (Mimeographed).

McIntosh, Peter C. 1963. Sport & Society. London: C. A. Watts & Company, Ltd.

Petrie, Brian Malcolm. 1970. "Physical Activity, Games and Sport: A System of Classification and an Investigation of Social Influences Among Students of Michigan State University." Unpublished doctoral dissertation, Department of Health, Physical Education and Recreation, Michigan State University.

Wickwire, George. 1955. "Activity Analysis for Rehabilitation." The Archives of Physical Medicine and Rehabilitation, (September): 578-86.

Bibliography

Broer, Marion. 1973. Efficiency of Human Movement. Philadelphia: W. B. Saunders Company.

Duvall, Ellen Neall. 1959. Kinesiology: The Anatomy of Motion. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Jensen, Clayne and Schultz, Gordon. 1970. Applied Kinesiology. New York: Mc-Graw Hill Book Company.

Jokl, E. and Simon E. (eds). 1964. International Research in Sport and Physical Education. Springfield, Illinois: Charles C. Thomas.

Johnson, Warren and Buskirk, E. R. (eds). 1974. Science and Medicine of Exercise and Sport. New York: Harper and Row, Publishers.

Ulrich, Celest. 1968. The Social Matrix of Physical Education. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

II. Procedural Model for Prescriptive Programming

Introduction

To improve physical education and recreation opportunities for the handicapped we need to look at the validity of current program practices so that a model may be developed with a more systematic approach to programming. The purpose of such a model is to provide a tool for program design which promotes specified and measurable outcomes. The process of activity analysis, as described in the previous section, should be incorporated into this model.

Recently, program development and research are being conducted using a systems approach for designing, implementing, and evaluating programs for certain target populations. The systems approach to programming can be described as a procedure which follows a specific format including (1) determination of goals and objectives, (2) systematic design of content and instructional/interaction procedures to reach the objectives, (3) implementation, (4) evaluation to determine if goals and objectives are met, and (5) revision of the program based on evaluation data and program results. While the systems analysis approach is meant to be a flexible tool in program planning, the following stages are suggested in the comprehensive planning of a physical education or recreation program. These stages may be changed or modified based on the unique characteristics of the program setting:

1. Investigation and formulation of program purpose and goals;
2. Program conceptualization;
3. Development of the prototype program;
4. Implementation of the prototype; and
5. Program evaluation.

These stages allow the developer to: (1) know what needs to be accomplished; (2) order events in such a way that they may be accomplished; (3) assess whether these events do, in fact, accomplish what was intended; and (4) modify events, when necessary, in order to accomplish needs (Wessel 1973).

The Theoretical Model for Program Development

Program development can be thought of in terms of converting theory into practice. This research-to-practice transition requires the series of stages listed above. This series of steps or stages in the program planning model will be described, in further detail, in this section.

Stage 1: Investigation and Formulation of Program Goals. Every program must begin with a purpose, which reflects an identification of content based on the values of society and the needs of the specific population. To define a purpose which is relevant such procedures as research review and task analysis should be used. One should also address the following: target population; needs; staff competencies; agency and environmental characteristics; and resources (staff, finances, facilities, and equipment). The general statement of purpose serves as a backbone for the entire planning process and should be reflected in each stage in program planning. After arriving at a purpose, goals are established which refine and describe the purpose in greater detail.

Stage 2: Program Conceptualization. The specific course of action is determined in this stage. Based on information acquired through the first stage and the review of the purpose and goals, alternative program strategies are presented. A decision is then reached related to a course action. This involves the selection of program components and the specification of desired program outcomes for each component.

Stage 3: Development of the Prototype Program. Within this stage of planning, the program specifications, formulated in the second stage, are used to systematically produce the substance, form, and order of the program content. This process involves writing behavioral objectives, designing strategies, and formulating evaluative tools/procedures. It is in this stage that activity analysis is most closely related to the program development process. The goals and objectives of the program are examined to extract the instructional and interactional techniques and activity content and sequencing. Activity analysis would provide information for determining the appropriateness of certain activities in achieving certain specified objectives.

Stage 4: Implementation of the Prototype. Because the program prototype is necessarily removed from its knowledge or research base, it must be implemented or "tried out" during the planning process. This becomes one of the necessary steps in quality control.

Stage 5: Program Evaluation. This stage and the one which precedes it are not truly "planning" stages; but they contain operations which serve to verify to total planning process and the program's operation. The deficiencies and weaknesses of the program produced may be identified during this phase. Concern must be focused on *what* is deficient and *why* it is deficient.

Thus, the formative evaluation process serves to identify problems in the planning process by first identifying weaknesses in the program itself. Decisions are made as to where to adjust the program, and improvements procedures are identified. These are followed through the planning system at what entry point is selected. The process of program planning and operation is one of continual evaluation and modification. Program improvements are continuously being made.

Summary and Implications

Because of current concern for program accountability within all agencies delivering recreation and physical education services, a closer look at program development is in order. The systems approach has been found to be a viable means of program planning for physical education and recreation. The planning stages are meant to be flexible according to the unique characteristics of the program setting.

The theoretical model for program development, as described in the previous pages, has been designed for several purposes:

1. To provide a "bridge" between the research or knowledge base and practice.
2. To provide for accountability through continuous programming based on evaluative data.
3. To provide a step-by-step systems analysis for the planning and delivery of programs in special education, physical education, and recreation.
4. To develop greater provision in the delivery of such programs (Compton 1973).

Bibliography

Compton, David M. 1973. *The Linear Model for Individual Treatment in Therapeutic Recreation.* Unpublished research paper. Recreation Education Program, University of Iowa.

Peterson, Carol A. 1974. "Applications of Systems Analysis Procedures to Program Planning in Therapeutic Recreation Service." In E. M. Avedon (Ed.), *Therapeutic Recreation Service.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Vogel, Paul G. and Carmichael, Donald L. 1974. "Research and Evaluation in Curriculum Development." Unpublished research paper. I CAN Field Service Unit in Physical Education for the Handicapped, Michigan State University.

Wessel, Janet A. 1974. "I CAN Curriculum in Physical Education and Recreation." Unpublished manuscript. I CAN Field Service Unit in Physical Education for the Handicapped, Michigan State University.

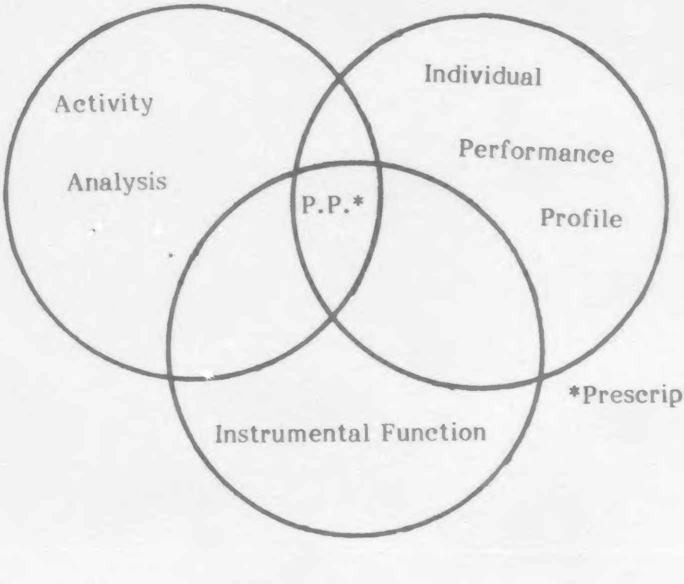
Wessel, Janet A. 1973. "Physical Education Related to Special Education--Improvement of Progress for Handicapped Children." I CAN Field Service Unit in Physical Education for the Handicapped, Michigan State University.

Reactor: Doris L. Berryman
Professor
Department of Leisure Studies
New York University, New York

Dr. Peterson has presented us with a clear and concise overview of the current state of the art regarding activity analysis and its application to prescriptive programming. Perhaps the best reaction I can give is to share with you briefly the current status and some of the major problems of the project we are conducting at New York University.

At present we have completed our review of the literature in relation to activity analysis, the utilization of play and recreation activities to achieve learning or treatment goals, and testing and measurement instruments and strategies for behavioral assessment; we are nearing completion of a functional model for activity analysis.

In our quest for a functional model, we started with a conceptual process model devleoped by Claudette Lefebvre. This model contains three interconnecting elements which depict the relationship between and among the elements and the relationship of all to the prescriptive process.



*Prescriptive Programming

A number of existing models and methods of analyzing activities were examined (including those mentioned by Dr. Peterson and previous work done by Jean Mundy and Claudette Lefebvre, along with psycho-motor educational models developed by Kephart, Cratty, Vallet, and others), and concepts which seemed useful to our purposes were incorporated in some manner. Synthesis of this information resulted in a listing of over 400 factors. The following three criteria were used to select those factors which were most pertinent to the purposes of the study: (1) factors relating specifically to the natural course of human development; (2) factors demanded in the performance or conduct of an activity; and (3) relevance to a recreational setting.

This delimiting process resulted in a listing of 104 descriptors and 103 prescriptors. Descriptors are those factors which describe the type and structure of the activity, requirements for conducting the activity (such as facilities, equipment, minimum number of participants), and some general behavior requirements (such as energy cost, physical contact, competition). The prescriptors are locomotor, perceptual-motor, cognitive, sensory, and physical behaviors which are required for participation in activities and can be observed and assessed. To the extent possible, the prescriptive behaviors are arranged in a developmental sequence. (One of the areas from which we eliminated a large number of factors was kinesiological requirements. We originally had had over 70 factors, most of which, it was determined, the average recreator would not understand. It was also felt that the average recreator would not have sufficient training to assess a child's kinesiologic functioning.)

The social and affective behavior areas or domains have presented major problems. Activities can be analyzed in relation to the level of social interaction required for successful participation; but assessing the child's level of social interaction is very difficult to do, and, in fact, impossible to do with any acceptable degree of validity and reliability unless a number of observations are made over time. Since activities cannot really be analyzed in relation to the individual's affective response, it was determined rather early in our deliberations to eliminate this domain as being inappropriate for the purposes and thrust of this study.

We are currently continuing the process of refining and defining the descriptors and prescriptors; beginning the development of a criterion-referenced observation checklist to assess children's performances in all of the prescriptive factors; and designing the computerized prescriptive system.

Wessel, Peterson, and Knowles have provided us with an excellent overview of the current state of the art in relation to activity analysis and prescriptive programming and have rightly stressed the necessity for employing a systems approach to develop, implement, and evaluate model or prototype programs and services. The act of analyzing activities is an empty intellectual exercise unless it is considered to be an integral part of a process which includes client behavioral assessment, prescriptive program design directed toward meeting individual learning and/or rehabilitation goals, effective program delivery design, and program evaluation.

7

Reactor: John H. Lewko
Research Assistant Professor
Department of Recreation and Park Adminstration
Children's Research Center
University of Illinois, Champaign

"Activity analysis" is a term which appears to have no documented history or basis for its existence. It is, therefore, difficult to react to a position paper which is directed to such an area. Since the thrust of the conference is toward therapeutic recreation, it is appropriate to approach activity analysis from that perspective as Dr. Peterson has attempted to do in her paper.

The state of the art paper on activity analysis could be summed up, I believe, in the following four points:

1. The basic premise in using activity analysis is to change specific aspects of an individual's behavior through systematic use of a specific activity or sequence of activities.
2. There is a paucity of literature pertaining to activity analysis in any aspect, and in such literature which does exist there is little concern for the activities themselves.
3. There appears to be no method of activity analysis whatsoever which individuals in therapeutic recreation could use to meet the basic premise of activity analysis, that of pairing a specific activity to a specific piece of behavior.
4. The utilization of activity analysis is not very widespread, which is logical in the light of the lack of information on the subject.

These four points could be viewed as the essence of the state of the art, and in that respect I do concur with and support Dr. Peterson's analysis. There are, however, some points of disagreement or criticism which should be stated.

Twice in the position paper pointed reference was made to the idea of the need in activity analysis to separate the activity from the situation surrounding the focal individual. Advocacy of such a position could be more clearly understood if the concept and methods or techniques of activity analysis were delineated in some fashion and, indeed, "activity analysis" were a technical method solely concerned with the analysis of activities, per se. The possibility does exist, however, that activity analysis could be more than a technical method; it could be a process by which an individual analyzes a situation, obtains information, and makes critical decisions with respect to predetermined goals or objectives. In this instance, disregard for the situation surrounding the focal individual would result in obtaining less than adequate information, restrict the decision-making process, and have possible adverse effects on the outcome. The idea of separating the activity from the situation for purposes of analysis also runs counter to recent attempts at developing more adequate theoretical approaches to understanding and explaining human behavior. Mischel (1973) has clearly identified the importance of situational variables in any attempt to understand persons.

The inclusion of the conceptual models, which comprised over one-half of the paper, did very little to clarify what activity analysis is or what it should be. Apart from the Avedon model, the others appear to be attempts at categorizing or classifying play, recreation, games, or physical activity as general phenomena. The basis for activity analysis should not be some vague and general divisions of types of behavior in which individuals engage, but rather, the more fundamental notions of human development which underly behavior and thus provide an understanding of the dynamics of the individuals functioning in these general areas. Avedon's model does attempt to focus attention on factors which are fundamental to an individual's functioning in general areas like play and physical activity; however, the generality of the various components of the model mitigate against its use as a model for activity analysis.

A second criticism pertains to the failure to deal with the essence of prescriptive programming, that of the efficacy of using selected activities to promote specific changes in behavior. A brief discussion of this aspect in the paper would be logical since the concept of prescriptive programming is contingent upon activity analysis, a process or method which currently does not exist. The exclusion of such discussion should have been acknowledged in the paper to permit the audience to determine if the omission was conscious or an oversight. This is particularly true in light of the content of the second section of the paper which deals with a model for prescriptive programming. It must be made clear that a systems approach to activity analysis should not be equated with a systematic approach. The model pertained to a systems approach, within which a systematic approach to evaluating the effectiveness of prescriptive programming should be a major concern. Hence, the systems approach deals with the question of the effectiveness of the program activities only in a larger and more general sense.

The concept of "prescriptive" could have been dealt with in terms of its definition or scope. What do we mean by "prescriptive activities" in therapeutic recreation? The word "prescriptive" carries a connotation of specificity, yet the manner in which it is used in therapeutic recreation is one of generality. For example, in discussing the efficacy of camping as a prescriptive activity, Ryan and Johnson (1972) stated that camping was an agent capable of healing the disturbed, yet, there were no data provided which would have substantiated this claim. Further, examples of the lack of specificity, hence non-prescriptiveness, are provided by Cohen (1974), Hayes (1971), and Post (1973). It would appear that rather than struggling with the need to verify (in very clear and objective terms) the outcome of an activity, an easier course is taken. The purpose and expected outcomes are stated in general terms such as "ego-enhancement" and "emotional catharsis," thereby providing a virtually impossible measurement problem in terms of determining efficacy, with the end result being the use of subjective evaluation as the only measure.

A quote from Lewis Carroll's Alice's Adventures in Wonderland can best sum up the state of the art of activity analysis in therapeutic recreation:

> '. . . how can you possibly award prizes when everybody missed the target?' said Alice. 'Well,' said the Queen, 'Some missed by more than others, and we have a fine normal distribution of misses, which means we can forget the target.'

References

Cohen,P. H. 1974. "A Compilation of Recreational Activities Which May Aid in the Reduction of Hostility in Psychiatric Patients." Therapeutic Recreation Journal, Vol. 8, No. 1: 47-49.

Hayes, G. A. 1971. "Activity Analysis: Finger Painting for the Mentally Retarded." Therapeutic Recreation Journal, Vol 5, No. 3: 133-138.

Mischel, W. 1973. "Toward a Cognitive Social Learning Reconceptualization of Personality." Psychological Review, Vol. 80, No. 4: 252-283.

Post, M. S. 1973. "Therapeutic Activities: Objectives and Goals." Therapeutic Recreation Journal, Vol. 7, No. 2: 21-25.

Ryan, J. L. and Johnson, D. T. 1972. "Therapeutic Camping: A Comparative Study." Therapeutic Recreation Journal, Vol. 6, No. 4: 178-180.

Selected Bibliography

Davis, W. E. 1973. "Developing Activities to Stimulate Creative Thinking Among EMR Students." Journal of Special Education for Mentally Retarded, Vol. 10: 27-28.

Llorens, L. 1973. "Activity Analysis for Cognitive-perceptual-motor Dysfunction." American Journal of Occupational Therapy, Vol. 27, No. 8: 453-456.

Lovinger, S. L. 1974. "Learning Disabilities and Games." Academic Therapy, Vol. 9: 183-185.

Pegnia, A. F. 1972. "Selected Motor Activities for the Advancement of Reading Readiness." Physical Education, Vol. 29: 190-192.

Valett,R. E. 1972. "Developmental Task Analysis and Psychoeducational Programming." Journal School Psychology, Vol. 10: 127-133.

STATE-OF-THE-ART:

Adaptation/Design Considerations

Presentor: T.J. Nugent

Reactors: Thomas A. Stein, Matthew Sullivan,
Richard M. Switzer

Presentor: T.J. Nugent
Professor and Director
Division of Rehabilitation-Education Services
University of Illinois, Champaign

"Adaptation and Design Considerations"

The state of the art, if one can call it that, is very much advanced over what it was just five years ago. It is certainly much advanced over what it was in the late 1950's when the American National Standards Committee on Designing for the Physically Disabled and Aging was officially created. To those of us who have been involved since the 1940's, it is somewhat unbelievable. We are moving forward steadily and in the right direction in most areas of concern in most parts of the country, although progress is not necessarily uniform. For so many years few people seemed to care and even fewer were responsive to the design needs of the handicapped. The amount of interest and action I have seen in the last eight years is gratifying.

A Brief Review of Design and Construction Considerations

Let us first review developments on the design of buildings and facilities. In 1959 the American Standards Association (now the American National Standards Institute) recognized and accepted as an official project the problems of accessibility and usability of buildings and facilities by the physically handicapped and aging. Co-sponsors of the project were to be the President's Committee on Employment of the Handicapped and the National Society for Crippled Children and Adults, with principal financial support from the National Society.

A Steering Committee and the Sectional Committee were appointed; membership comprised distinguished representatives of more than 50 professional oraganizations, trade organizations, volunteer agencies, and Federal, state and municipal government agencies; others were included who were knowledgeable about the matters under consideration. These committees were to bear a responsibility for the development of the Standard and have a responsibility for the implementation and possibly enforcement of the Standard. Following extensive research, investigation, authentication, and considerable input and deliberations by the Steering and Sectional Committees, the Standard was drafted and submitted to a letter ballot. Any part of the proposed standard about which there was any question or disagreement, in part or whole, had to be noted in writing, accompanied by a detailed explanation and alternative suggestions. It is interesting to note that the final draft of the Standard received no negative votes or corrections and no

---

(Professor Nugent showed 100 slides which graphically illustrated the points herein described, including public transportation and samples of equipment which are in use.)

abstentions. The draft of the Standard was then reviewed by the Construction Board, the Standards Board, and the Editorial Board of the American National Standards Institute. In October of 1961, the "American National Standards Institute Specifications for Making Buildings and Facilities Accessible To, and Usable By, the Physically Handicapped" were officially approved and issued.

The standards were mutually agreed upon by those professions, trades, and governmental bodies which would have responsiblity for the development, implementation, or maintenance of the Standard or which would in any way be affected by the Standard. It should be emphasized that the Standards, of and by themselves, do not constitute a legal requirement; they must be translated into Federal, state, or municipal legislation or codes. All American National Standards have been the basis for such legislation and codes in almost all areas of endeavor, as they have been in this specific area of concern.

It should also be emphasized that the Standards are subject to continued updating to keep pace with sociological and technological changes. This Standard was officially reaffirmed as recently as 1971. The Standards are presently being updated and broadened; the main thrust is to enlarge the scope of the Standard to include housing which had been deliberately excluded previously because of the concensus, at that time, that there was a lack of readiness on the part of the general public and that the inclusion of housing would make the Standard too encompassing. It is further true that the U.S. Department of Housing and Urban Development (HUD) had not then been established. It is most appropriate that this expansion be done now because of the existence of HUD programs, as well as evident needs. HUD is lending considerable financial support to the Standard and will assume the role of the Secretariat for the Standard.

Programs of Implementation and Public Education

Subsequent to the approval of the Standard, many programs of public education and implementation went into effect immediately. Perhaps the most dramatic was the program of the National Society for Crippled Children and Adults (established in concert with the President's Committee on Employment of the Handicapped and supported in part by a Federal grant) which developed film strips and slide presentations and sponsored lectures, the first national workshop on this subject, and many state and regional workshops. This program ran for more than three years and was supplemented by many other programs at the state and community levels.

Design considerations and architectural barriers also became a major concern of the International Society for the Rehabilitation of the Disabled, now Rehabilitation International, which conducted several international conferences. The international symbol of accessibility, recognized around the world, grew out of one of the standing committees of Rehabilitation International. Unfortunately, the symbol has been abused and misused by many; however, its use is now being corrected and standardized.

Subsequently, the National League of Cities, under a Federal grant, conducted a nationwide study on the adaptation, implementation, and effectiveness of the American National Standard. The report cited some very positive examples of good programming and effectiveness, as well as some shortcomings in various parts of the country.

In 1966 the Secretary of Health, Education and Welfare appointed a National Commission on Architectural Barriers. This Commission held several meetings, heard testimony from 44 experts on different facets of the problem, consulted with many Federal, state, and local officials, and became involved in other activities. It subsequently published a report entitled "Design for All Americans."

The American Institute of Architects, under a short-term Federal training grant held 10 regional workshops on barrier-free architecture across the nation. Invited to these workshops were architects, engineers, design personnel, state and municipal officials, the physically disabled, and any and all others who would have reason to be involved or interested in this subject. The American Institute of Architects published a final report on their barrier-free architecture workshop program.

The American Society of Landscape Architects received a Federal grant to make a nationwide study of outdoor areas and site development on behalf of the physically disabled and aging. They did an extensive study and developed many graphic illustrations, including slides, which depict outdoor facilities of many sorts designed with the physically disabled and the aging in mind.

More recently, activity initiated in Washington, D. C., has resulted in a board concerned with compliance of Federal buildings, at least, with standards of accessibility and usability and compliance in other areas of concern to the physically disabled.

Several states, including North Carolina, New York, and Illinois, have published brochures with graphic illustrations to supplement their legislation. Most recently Wisconsin's Task Force on Problems of People with Physical Handicaps published a comprehensive final report which concerns itself with many facets relating to the disabled.

Many groups in many cities throughout the nation have developed directories or guides for the handicapped, identifying the accessible and usable facilities. While some have been valuable, others have proven to be inaccurate and unhelpful.

Legislation

Forty-eight states have passed legislative acts requiring that buildings and facilities be constructed to be accessible to, and usable by the physically disabled. Two states have incorporated this concern into their established state building codes, and the District of Columbia has an executive order governing construction. These laws vary considerably from state to state as to their applicability, means of enforcement, and authoritative or responsible office or officers. Many states have already amended their initial legislative acts to strengthen and broaden them, and many others are contemplating doing the same. Many municipalities also have similar laws or ordinances.

Formal Education

Each year more and more schools of architecture include, both formally and informally, subject matter on the needs of the physically disabled and the aging and how these needs might be met through design and construction. The National Student Division of the American Institute of Architects has made the elimination of man-made and architectural barriers a principal topic at its recent conventions. There is no doubt that future graduates in architecture and the design and construction professions will be more aware of the physically disabled and aging, their needs, and how these needs might be met.

Several university extension divisions have conducted in-service training programs and workshops for architects and the design and building professions on the elimination of architectural and man-made barriers to the disabled and the aging.

Industry's Response

Of considerable importance is the fact that well established manufacturing firms have begun to produce as standard line items various components required to facilitate mobility and participation of the physically disabled and the aging. This means that such things as appropriate hand rails, shower seats, hardware of various types, and many other items are readily available at a much more reasonable price than ever before. Many new firms specialize in adaptive equipment. I would caution everyone, however, to be people-oriented, not gadget-oriented; do not encumber individuals with gadgetry unless the individuals' resources and other non-encumbering procedures fail to do the job. The right piece of equipment for the right person at the right time is priceless. The procurement of equipment because of the uniqueness of the equipment, itself, may not be helpful to an individual.

Effect

Thousands of buildings and facilities have now been designed to be equally accessible to, and usable by, all people, including the most severely physically disabled and the aging. These include libraries, athletic stadia and arenas, performing art centers, privately owned and operated theaters, swimming pools, schools at all grade levels, outdoor play areas, and commercial and industrial buildings and facilities. Some outdoor areas have incorporated those things that will make them most usable and beneficial to persons displaying various manifestations of physical disability, including the blind. Any building and facility can be designed and constructed for use by everyone without loss of space or function, without unique distinction or identification, and without significant extra cost.

Participation by the Physically Disabled

It is difficult, if not impossible, to address one's self to adaptations of games, playing rules, and related elements to meet the needs of the physically disabled because (1) there are so many causes and manifestations of physical disability, (2) there are so many times in an individual's life when he or she might be beset with a severe permanent physical disability, and (3) there are so many activities. There is no common denominator to physical disability other than the problems with which disabled individuals must contend because of social apathy and man-made physical and attitudinal barriers thrown in their pathways

We must first realize that the aspirations, interests, talents, and skills of those with disabilities are basically the same as those of others, although the disabled may choose or be compelled to exercise these differently. Far too often we begin from the assumption that these people are different; we build in many things which are as encumbering and limiting as the specific physical disability itself. Quite often this results in an unreal activity or distorted participation. We would be far wiser to select an activity that would deviate as little as possible from normal in accommodating the individuals with whom we are working. Such an activity would most likely sustain itself in the life of the individual beyond the formally structured program and thereby have much more meaning.

There are many effective and successful ongoing programs for those considered to be severely disabled, such as the National Wheelchair Basketball Association, the United States Blind Golfers Association, and the American Blind Bowling Association, to name a few. In each of these there have been few, if any, alterations in the rules, per se, that affect the objectivity or worth of the activity. Adaptations are generally made that would allow a person to wheel, for instance, rather than run. Of particular note would be the means by which the severely, permanently physically disabled are classified for competition within the National Wheelchair Basketball Association, the National Wheelchair Games, and the International Wheelchair Games. Each has a system designed to make competition equitable, satisfying, and objective.

Equipment

Countless pieces of equipment are on the market to facilitate the participation of people with specific and unique disabilities or patterns of disability. There are special sports-model wheelchairs and a lightweight, collapsible, portable, easily stored "rail" for blind bowlers developed in the 1950's by Mr. Martin Mahler, a blind industrialist. Mr. Mahler subsequently developed a larger and stronger "rail" to be used in tournament play. Several schools, such as the University of Illinois, maintain these "rails" so that blind students can check them out at will for bowling. The important thing is that the individual assumes full responsibility and complete independence. The only time he or she might need assistance is in identifying the pins which "might" be standing after the first ball in a given frame.

I would emphasize that we must work with individuals, not do things for or to them. I would further emphasize that nothing can take the place of common sense and good, valued judgments on the part of the professionals working with these individuals.

Conclusion

I have attempted to give you some idea of the many things that have been going on which are of major significance and national in scope. Many other efforts and programs are underway, but they are too numerous to describe at this time.

What must we do first and how should we do it? One thing I would like to discourage is repeating. Let's quit reinventing the wheel. This is not to deny the need for more research and more program development. However, the knowledge which is already at hand has not been disseminated widely enough to those who need it. Our first goal should be to make better use of what we have. After we have done this, we will be so much further along that we will be able to clearly and realistically identify specific needs for research and development, as well as for programming.

We must make all professionals serving disabled persons fully aware of what exists and how it might be used in the interest of those whom we serve. We must have a continuing program of public education to create awareness and action.

To help break down the man-made physical barriers that have in the past precluded the participation of the physically disabled and the aging in regular programs and facilities we need to continue to redesign our programs to meet the needs of all people. The physically disabled will then be more a part of society and can do much to alter existing attitudinal barriers. At the same time we should be working with them to develop their resources and appropriate concepts of self.

References

American National Standard, ANSI A117.1 - 1961 (R-1971), "Specifications for Making Buildings and Facilities Accessible To, and Usable By, the Physically Handicapped." American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

Making Facilities Accessible to the Physically Handicapped, Performance Criteria, State University Construction Fund, Albany, New York, July 1967.

"Standard Specifications for Facilities for the Handicapped," 1968, Authorized and enforceable under Illinois revised Statutes, Chapter III, Section 1, etc., Capital Development Board, State Office Building, Springfield, Illinois.

An Illustrated Handbook of the Handicapped Section of the North Carolina State Building Code, 1974, The North Carolina Building Code Council of the North Carolina Department of Insurance, Raleigh, North Carolina 27601.

Final Report of Wisconsin's Task Force on Problems of People with Physical Handicaps, July 1974, Governor's Task Force on Problems of People with Physical Handicaps, Madison, Wisconsin 53702.

Planning Facilities for Health, Physical Education and Recreation, Third Edition, The Athletic Institute, Chicago, Illinois, 1965.

Planning College Facilities for Health, Physical Education and Recreation, Second Edition, The Athletic Institue, Chicago, Illinois, 1968.

A Check List for Retirement Homes, by H. A. Steinberg, Small Homes Council, University of Illinois, Urbana, 1958.

Design for All Americans, A report of the National Commission on Architectural Barriers to Rehabilitation of the Handicapped, December 1967, Rehabilitation Services Administration, Social Rehabilitation Service, Department of Health, Education and Welfare, Washington, D.C. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price: $.50.

Final Report of the American Institute of Architects Barrier Free Architecture Workshop Program, American Institute of Architects, 1735 New York Avenue, N.W., Washington, D.C. 20006.

Rehabilitation Record, May-June 1972, U.S. Government Printing Office, Rehabilitation Service Administration, U.S. Department of Health, Education and Welfare. Recreation and Rehabilitation, The Creation in Recreation.

Nugent, T. J. "The Design of Buildings to Permit Their Use by the Physically Disabled," *New Building Research*, National Academy of Sciences--National Research Council, #910, Fall 1960, pp. 51-67. (Includes an outline of all areas of concern)

______"Building Standards for the Disabled," *Rehabilitation*. Journal of the British Council for the Rehabilitation of the Disabled, July-September 1963, pp. 39-45.

______"Let's Look Beyond -- To Put Meaning To Recreation and Rehabilitation," *Recreation in Treatment Centers*, Volume III, September 1964, Hospital Recreation Section, American Recreation Society, and U.S. Department of Health, Education and Welfare, pp. 33-42.

______"Expanding Horizons in Recreation," *Proceedings of the 1971 Midwest Regional Therapeutic Recreation Symposium*, September 1971, National Therapeutic Recreation Society.

Reactor: Thomas A. Stein
Associate Professor
Program in Recreation Administration
University of North Carolina, Chapel Hill

I agree with Tim Nugent when he says that we have done a relatively good job in developing ways to design, construct, and renovate physical structures to facilitate access to and use by individuals with mobility problems. The know-how is available, but we may wish to refine some of our capabilities appropriate to specific types of facilities.

I will mention some examples of steps taken to facilitate mobility. One concerns making higher education facilities accessible to handicapped students at the University of Missouri at Columbia; another deals with criteria at the State University of New York. There is also some information dealing with design standards to accommodate people with physical disabilities in park and open space planning, which was done at the Recreation Resources Center at the University of Wisconsin. In the State of North Carolina we have just completed an illustrated handbook concerning the section of the North Carolina State Building Code which deals with the handicapped. This Code applies to all public facilities, including schools, and to many privately-owned buildings intended for public use.

As I see the situation, the problem really lies in disseminating this knowledge and changing the professional behavior or habits of builders and the buyers of their products so that the knowledge can be translated into design of areas and facilities. We have attempted, with some success, to influence architects, builders, and decision-makers to encourage change; however, a great deal still needs to be done.

What did we do next? We moved toward the concept of legislation and mandatory change; again, with limited success. It seems to me that over the years, we were striving to motivate, to encourage, to stimulate people--not force them--to make modifications because it was the right thing to do. I think it is time to take a good hard look at what we have done and see what has to be done in the future. What is the effectiveness of our Federal, state, and local legislation? My conviction is that, with a rare exception, most of these legislative efforts lack teeth. They look great on the books; there are perhaps some government agencies responsible for following through to see that these mandates are carried out, but generally, it isn't happening.

Some of you may know that when the Federal legislation was passed in 1967, responsibility was to rest with the General Services Administration. It now appears to rest within the Department of Health, Education, and Welfare, where a task force of approximately 10 people will begin to find out why regulations are not being implemented. The legislation stipulated that all buildings supported in part or in total by Federal funding must comply with standard specifications contained in the regulations. There are lapses throughout the country.

Similar problems are found at the state level. In North Carolina, responsibility for compliance rests within the Insurance Division of the State Administration. Funds were never appropriated for a staff; consequently, no one is reviewing design plans. Occasionally an inspector may be aware and may serve as an advocate, but this is not typical. We would benefit greatly by an investigation of this area.

One of my great concerns is public interest. Is it waning? What is the current degree of awareness among key groups in our population? Among the general public? About eight or nine years ago, I would ask my beginning students if they knew about architectural barriers; perhaps one or two within a class had some knowledge of this issue; about four years ago, entire classes had some knowledge. This year only three out of 30 responded positively. I am wondering if we tend to revert to former patterns once pressure is removed and visibility of an issue decreases.

Are recreation facilities at the local and state levels being built with architectural barriers? This is of concern not only in relation to active leisure participation by the handicapped, but also in relation to employment. If the handicapped qualify for jobs they should not be barred from employment at a location due to architectural barriers.

One last thought. . . Over the last two years Chapel Hill has installed curb ramps and parking spaces marked with the international accessibility symbol. These spaces are not used. Why? I think for too long we have done things for instead of with the handicapped. We need to pay attention to their input, involve persons with physical disabilities in creating their own "destiny," and help them understand that they, too, have a responsibility in resolving architectural barriers. For example, if the disabled do not or will not use the designated parking spaces in Chapel Hill, it may not be too long before the city returns them to regular use.

Reactor: Matthew Sullivan
Consultant in Physical Education
Special School District
Town and Country, Missouri

I'm speaking to you from the framework of a physical education person working in a public school setting with handicapped individuals. I think there must be a greater effort to educate the public, in general, about the handicapped and the parents and those responsible for education and rehabilitation programs for the handicapped, specifically, as to the value of leisure time education for the handicapped. Those of us in physical education and recreation have done an excellent job of educating and convincing each other that leisure time education and education for leisure are viable programs for the handicapped. But an observation of many of the programs for the handicapped reveals little effort being made in the area of recreation.

Rehabilitation and education programs emphasize vocational skills, but little emphasis is placed on recreation skills. Until we can convince disciplines and administrative echelons other than our own of the value of leisure and recreation activity we will continue to see low priority given to recreation programs in many areas of our country. Unfortunately, the excellent programs discussed today are not typical of those operating in many communities.

If we are to individualize the curriculum for the handicapped, we must state specifically what is to be learned. These statements are most often referred to as "behavioral objectives." The curriculum then reflects a progression from base-line zero to the terminal--a sequential ordering of behavioral objectives. The individualized intervention program then may require adaptions, modifications, and/or supporting paraphernalia in order that the individuals progress toward these objectives.

Another point of concern should be the many gadgets and play equipment sold under the label of "adaptive." Advertisements illustrate children on crutches and in wheelchairs and give the impression that such children are about to drop the crutches, leave the wheelchair, and play on the equipment. The advertisers use all the proper professional jargon, but this type of sales promotion hurts our professional credibility. These ads even appear in our journals and other professional publications. We should be aware of this problem and possibly work toward setting some standards for advertising. Equipment manufacturers are needed in the free enterprise system and must work with us. The Lifetime Sports Project, in effect for a number of years, cooperated very effectively with the programs for the handicapped and complemented the credibility of the manufacturer.

There have been many studies concerning the effect of passive and vigorous activity on the affective, cognitive, and psycho-motor domains of normal and handicapped individuals. The health benefits of cardiovascular activities on the human organism are well documented. The need for substantial evidence of the impact of this type activity on the handicapped is very apparent at this time. There is also a need for design adaptation that will permit the handicapped to utilize equipment in order to receive these benefits. The equipment must be within the financial reach of local communities with limited budgets so that children with handicapping conditions can benefit from vigorous cardiovascular activities.

Reactor: Richard M. Switzer
Headmaster
Human Resources School
Albertson, Long Island, New York

Who is the Disabled Child?

There is a tendency to group children with diverse disabilities or impairments into one category and refer to them as "handicapped." This happens not only in the area of leisure activities, but also in education, vocational training, and employment, as well as in other facets of life. By grouping individuals this way we are perhaps presenting an unfair challenge to those unable to function on a competitive level and a source of frustration for that child whose ability is not as limited as others in the category.

At the Human Resources School we have found that our severely disabled children (most of whom have normal intelligence) have goals and interests that are quite similar to those of the physically "normal" children. In the area of leisure the disabled children are interested in a wide range of activities and do not necessarily see themselves as "handicapped" in their participation. In fact, many of the youngsters on the elementary level idolize athletes in professional sports and see themselves as being baseball or football players when they grow up.

It is true that the disabilities do create physical limitations for the children. However, the handicap occurs only when the children begin to believe that they cannot fulfill their goals.

Barriers to Participation

It is therefore very important to plan realistic programs for disabled children; we must understand the extent to which the child can participate and allow the youngster the opportunity to be involved to the fullest of his or her ability.

There are two major obstacles to full involvement of the disabled person in leisure activities: architectural barriers and attitudinal barriers. Much has been written about architectural barriers, so I need not go into that area in great detail. But, it should be pointed out that many of the leisure activities available to the able-bodied person are also of interest to the disabled person, who would engage in them if they were accessible. Many of the disabled could use swimming pools if there were a ramp to the pool area and wider doors in the locker rooms. If proper terrain were provided at the sites, persons in wheelchairs or on crutches could participate at miniature golf courses, picnic grounds, and basketball courts. Unfortunately, the disabled are frequently unable to engage in spectator activities because many museums, theaters, and sporting arenas are built with architectural barriers.

However, the most important barriers to full leisure participation by the physically disabled are attitudinal barriers. Many people consider "disability" to mean "inability." It is often assumed that the disabled youngster should not participate in leisure activities because of a physical impairment. To the contrary, the disabled student, like any youngster, wants to swim, bowl, and play basketball to the fullest of his or her ability. To the extent feasible, that participation should take place in the same programs that serve the able-bodied. Only through such contact and involvement will the able-bodied child or adult realize that the disabled person is a person with ability, and that the disability is not as limiting a factor as might be assumed. In other words, attitudes are only truly changed through experience.

Programs

At the Human Resources School (created in 1963 by Henry Viscardi, Jr., to educate physically disabled children who would otherwise be on home instruction) a program of adapted physical education was included in the curriculum. It is assumed in many public school facilities that the disabled child should not participate in physical education. It was our feeling at the School that an adapted physical education program could be created; the Medical Director reluctantly agreed to do so.

Today the program allows children with many types of disabilities (spinabifida, osteogenesis imperfecta, muscular dystrophy, cardiac) to participate simultaneously. The program is game-oriented; modifications are made to suit the needs of the participants. For example, if a youngster cannot run to the base in a baseball game, a youngster who can run takes his or her place. Plastic hockey sticks and pucks are used, and the more severely involved students, such as the youngsters with muscular dystrophy, play goalie. No one is eliminated in dodge ball; a point system is used instead.

This philosophy of adaptation is generally the basis for all school physical education programs, for most activities are modified to suit the needs of the younsters participating. It is, therefore, only an extension of the basic program to include the physically disabled child.

A further extension of the program at Human Resources was the creation of recreation and athletic programs. The recreation program further develops such skills as swimming, music, and art and encourages social interaction and broadening of cultural knowledge through trips to museums, theaters, concerts, and athletic events. As much as possible these programs are set up to allow the students to interact with their able-bodied peers; once again, contact is established, and, hopefully, attitudes are changed. As a result of this program facilities have become aware of the needs of the disabled, and many architectural modifications have been made.

As part of the athletics component, basketball and track and field programs were established. Teams participate in the sports program already in existence on an adult level throughout the United States. In fact, we have the only high school wheelchair basketball team in the country playing in league competition. A wheelchair basketball team for junior high students was also established; teammates play against able-bodied persons using wheelchairs. These games are played at local high schools and colleges. A point spot is used to make the games competitive. This program goes a long way to bring about awareness and attitude change.

In track and field one of our high school students placed second in the 1974 National Wheelchair Games with a lift of 185. His body weight is less than 100 pounds; more importantly, his disability is osteogenesis imperfecta (brittle bones). Even the wheelchair sports officials were reluctant to let him participate. The point is that we cannot always predetermine the extent of a person's capability by assessing the limitations imposed by his or her disability. This is true of all people, whether they are faced with a permanent disability or not.

Innovative programs like this and others can do much to facilitate change. Many of the recreational planners in Nassau County are building facilities which are adapted for use by both the disabled and non-disabled. More thought is being given to the disabled youngster in the public schools, and courses are being offered to physical educators and recreation leaders concerning the ability of the disabled person to participate in a full and integrated program.

Future Needs

Much is left to be done in the area of leisure activities for the physically disabled. Research is needed in such areas as the modification of equipment and facilities to suit the needs of everyone. Such ideas as a golf putter with an adjustable head might not only be used by the person in a wheelchair to hit the ball flush, but also by someone who is short. Many facilities that are ramped or elevated or whose landscape is level may not only suit the needs of the disabled, but also those of the elderly, temporarily injured, and pregnant women; in fact, they may be safer for all.

Seminars are needed to educate the public and professionals regarding the needs of the disabled. Architects, educators, recreation directors, physicians--all need more detailed information about disabled persons and how to better help them realize their potential.

Courses should be offered on the undergraduate and graduate level for students who are going into human service careers so that better planning can be done before the problem arises of how to cope with a person with a disability. Perhaps internships for work with handicapped groups should be part of many college curricula.

Summary

It is encouraging to realize that there is an emerging interest in involving the physically disabled in all aspects of life, including leisure and recreation. Much has been done already, and many new ideas are coming to the surface.

It is important that we keep in mind the needs of all people in our planning. When we put a label of "special" onto any group or program we are automatically, if not intentionally, making that group different. The physically disabled do not want to and should not be treated differently.

Perhaps some unique needs arise when one considers the disabled. But, in fact, we all face some unique needs in our own existence. Only when we learn to use the tools available in our society will we understand each other and learn to appreciate each other according to our real ability. This should be the goal of programming and planning in the area of leisure activities.

Presentor: H. Douglas Sessoms
Professor and Chairman
Curriculum in Recreation Administration
University of North Carolina, Chapel Hill

"Leisure Education/Professional Education/Leisure Counseling"

The category assigned to me by the planning committee encompasses a variety of concerns: leisure education, career education, leisure counseling, personnel development, and various intervention modalities. All have far-reaching implications for therapeutic recreators, as these areas deal with the socialization of people for leisure; the supporting and influencing of those who are either uninformed or dependent when it comes to learning how to deal with leisure; the channeling of candidates into the recreation profession; the nurturing of recreators as they move in their career; and the designing and conducting of programs of professional preparation and in-service training.

In preparing this paper, I met with colleagues, sought assistance from our library and the TRIC and ERIC information systems, and reviewed the report of the study of career education published by the U.S. Department of Health, Education, and Welfare (HEW) and the counseling kit prepared by Peter Witt at the University of Ottawa. Based on this limited survey of current research on these assigned concerns, I concluded that our efforts have been highly descriptive, professionally oriented and client-centered; the general focus has been upon what clients ought to do or upon the application of methodology or technique to a problem with some speculation as to the end result rather than upon the results of experimentation and systematic inquiry. To some degree, our research designs have been ill-conceived, over-ambitious, or inappropriate for the research task. They suffer from non-operational definitions and generalized concepts, a condition not unexpected given the general status of recreation research to date. This brings to mind a basic question with which we must deal: Is research a legitimate role and concern of park and recreation professionals?

To properly answer it, it seems to me that we first have to accept that recreation is a profession not a discipline and that there is a distinct difference between the two. Disciplines are concerned with knowledge as it applies to and relates back to a specific field of expertise, one which is not concerned with action or the implementation of research findings. Professions are concerned with action; they apply the findings of various disciplines in a particular way to a particular problem—the social issue which brought them (the professions) into existence. "Profession" and "discipline" are not synonymous, although some of us tend to use terms interchangeably. A lack of precision in defining and using these terms contributes to our dilemma. Should we be involved with amassing data or should we be primarily concerned with developing techniques for applications of these data to the delivery of recreation services? Can we do both? And, if so, at what cost?

The field of recreation and parks, as I perceive it, is a professional field not a discipline. Recreation and parks does not have a unique body of knowledge; our uniqueness comes for the application of general knowledge to the particular problem--the provision and maintenance of opportunities for leisure expression. Disciplines require different orientations and programs of professional preparation than those necessary for professions. Likewise, professions have their manpower needs and distinct programs of training and professional development.

It seems to me that if we can come to grips with these issues--the legitimacy of research in recreation and the difference between a discipline and a profession--we can begin to develop a research strategy and some research priorities. Since professions are action-oriented, their research and development efforts must have an immediate benefit, a pay-off, to the practice of professionals. This means that a lot of our investigations should be evaluations of where we are in our methodology, the application of that methodology to problem resolutions, and the testing of our current programs and program concepts. Let us leave to the disciplines the problem of theory and pure research. Let us rely on their findings and the procedures and processes developed by our kindred professions for direction and support. We need not duplicate the efforts of others; rather we should apply and modify their discoveries in our field of service.

For example, let the psychologists develop the instruments and tests necessary for leisure counseling. Let the clinical psychologists, vocational rehabilitation personnel, and school counselors develop and perfect methodologies of counseling. Let us adapt these methods and instruments to our leisure counseling concerns and then test and evaluate them for their appropriateness. The same may be said for curriculum development, leisure education, and in-service training. A host of models and data related to each of these general areas already exists. Our need is to evaluate them in terms of our objectives and goals.

From my comments you can see that I believe we should be involved in research, but not in the type of research which is undertaken by disciplines. We must recognize who we are and act accordingly. We need to assess our skills, needs, and priorities and develop a well-founded attack on our problem. Our best ploy is to deal with the things that are related to programming and to the management of our service. Leisure counseling is a very important part of programming, as are professional development and career education necessary ingredients for the maintenance of recreation systems. Our concerns should be: Whom do we counsel and train? Where do we counsel and train? In what ways do we counsel and train? What resources do we need to implement and support these processes?

In this recognition of where we are, I do not believe that we have to apologize for what has been done in our field--that is a reality. Some of our research efforts have been very good, relatively speaking; and some have been very poor, relatively speaking. Our previous work represents an honest effort to do something. Much of our difficulty lies in the fact that we have first chair aspirations with rhythm band experiences. We are not viewed as a research field. Our administrators have not recognized research as one of the things we ought to be doing. Consequently, we have received little financial and administrative support for our efforts. We have not created an atmosphere that is conducive to research; this is best illustrated at our research sessions at the National Recreation and Park Congresses.

In 1973, I served as a reactor to some presentations in a session that was designed to deal with more recent research in parks and recreation. There was a screening committee for the papers submitted and a series of evaluations. The results of this elaborate structure--two papers were submitted and both were given at the Congress. Was this the sum total of research for the year? Were only two people willing to make public presentations of what they had discovered? I think that there was more research completed, but every time we try to have a research session at the National Congress it is flat. Why? Is it because there is no expectation on our part to really be involved in this kind of research and research reporting?

Further, it should be noted that there is only one journal in the field of recreation and parks. Since its conception in 1969, The Journal of Leisure Research has published only four articles related to the field of therapeutic recreation, and three of them appeared in the first two years. Less than one-fourth of the articles have dealt with issues and aspects of recreation as we define and know the profession. It is not surprising that we have only one refereed journal, since these publications are generally produced by disciplines, not by professions. They are an outlet for the reporting of doctoral dissertations and the findings of research-oriented centers and organizations. Inasmuch we have few doctoral programs (the master's is considered our terminal professional degree) the need for research reporting mechanisms is minimal.

If you accept the proposition that recreation and parks is not a research-oriented field in the traditional sense, then progress can be made. We will no longer need to fight that battle and can then concentrate our energies on the kinds of studies which we are capable of performing and which are central to our profession. We can develop our own research strategies based upon the needs of our field. We will not need to judge ourselves by the acts of the disciplines in their quest for "a body of knowledge."

Let me propose we take the following course of action. First, let us begin with case studies which require systematic observation and reporting rather than the use of computers and related research hardware and technology. Other professions have gotten where they are by being good reporters of the behavior they observe, by studying individual cases and by drawing some conclusions as a result of their observations. They have reported the results in their professional, nonresearch-oriented journals and have encouraged others to replicate their efforts. There is nothing wrong with case research because case research is a study of human behavior--a holistic approach to the understanding. Now I know that the more sophisticated disciplines have gone beyond case research and might consider our investigations amateurish because they do not require a sophisticated language and technology; but are we in this to keep up with the "Research Joneses?"

Second, we need to identify and replicate those studies which seem to have the most potential. These may be investigations done by recreators or they may be adaptations of investigations done in other fields by other professionals. We do not always need to design new studies; replication is valid research effort and basic to the development of generalized concepts from which more specific and traditional research efforts may flow.

To facilitate this kind of case analysis and replication, we need to spend more effort in our professional preparation programs developing evaluation and recording skills. One of the characteristics of successful professions is the ability of its practitioners to record critical observations which become the basis for diagnosis and program planning. These observations are keyed to critical indices. For example, when you go to your physician he takes your temperature and blood pressure; he is getting vital information about your functioning. He can compare these measurements with those taken on previous visits and observe trends. He knows the indices of health. What are the indices of vital functioning for adequate leisure expression? When do we record them? When do we use them? We need to shift our mental set to make us better observers.

Closely related to our need for recording and evaluating skills are instruments to aid us in these endeavors. Many such techniques and tools have been developed by other professions and are readily adaptable to our field. We should begin now to identify and test them. If we find them inadequate for our needs, then we have a sound basis upon which to perfect our own. We could either rely upon the disciplines to assist us in that task or develop our own expertise as a result of our growing body of observations and experiences. This we can do now.

Our intermediate and long-range efforts will require a more discipline-oriented approach to research. If we do what I have suggested as the "now" kinds of things, the others will evolve naturally. They will include such activities as longitudinal studies, development of our own instruments and research models, conduct of experimental studies, establishment of university research cooperatives and centers of leisure studies, and reporting of these efforts in a variety of refereed journals. As with most other facets of life, there is a developmental process at work in becoming a research field. We need to understand this process and attempt not to short-circuit it.

Having suggested some general courses of action, let me now share with you some specific questions I think we need to consider in the areas of leisure counseling, professional preparation, in-service training, and leisure education. These questions result from my review of the research material in each area and to some extent reflect the status of the art as it currently exists.

Leisure Counseling

I sincerely believe we should be identifying and adapting existing counseling tools and models to the recreation setting before we start developing new ones. Although we have produced some instruments for leisure counseling, they have not been extensively verified. Replication studies would aid in this area. There is a tremendous body of literature on counseling; several professional groups have counseling as a primary role. We should build upon their experiences and complement and supplement their knowledge rather than duplicate their efforts.

Edwina Hubert developed an 80-item leisure interest inventory as a doctoral dissertation in educational psychology; it is very similar to the Kuder preference record in format and design. It purports to measure general interest preferences and provides the counselor with a profile of the client. Robert Overs of the Milwaukee Curative Workshop developed a system for classifying various avocational activities into nine main subject areas. He refers to this as his avocational inventory which may be used to enable counselors to realistically move clients into potentially satisfying leisure expressions. Gerald O'Morrow, Fred

Humphrey, and Gerald Hitzhusen have all reported on their experiences in counseling and have recommended procedures which may be used in a variety of therapeutic settings.

Many of the writings of those interested in leisure counseling have appeared in either the Therapeutic Recreation Journal or Rehabilitation Literature. To my knowledge five of us have utilized the instruments and models they have created; at least we have reported our findings. Before we urge others to create counseling instruments and techniques, we need to determine the validity of those which presently exist. Also, we need to look at the skills necessary to be counselors and the environments in which these skills can be best developed and used.

Professional Preparation and Career Development

Although we have had numerous national conferences on curriculum design and a massive effort on accreditation, I know of no effort to validate our educational approaches and the training materials we have developed. We have not tested much of what we use in our classroom and in-service training efforts, assuming that our models and materials are valid or else they would not be in use. We have made certain assumptions about the role of the two-year, four-year, and graduate programs and have described in our literature what we think each of these graduates can and cannot do; but we have not tested these critical beliefs. We have yet to determine what a professional role is as opposed to a nonprofessional role. If I am wrong, where has it been reported? Do we guard these untested assumptions so that they will become self-fulfilling and thereby prove us correct? In reviewing the literature, I found no significant research undertaking related directly to professional preparation and the validity of our educational materials.

Now you may rightly ask, how do you propose to measure the effectiveness of our educational efforts? What are our criteria of success? Those are good questions, but they are asked of every field of professional service. Some have attempted to answer; others have not. Possibly we begin by identifying what should be the outcome of our efforts and then measure the performance of our graduates against those objectives. I think the Bureau of Education for the Handicapped has forced us in therapeutic recreation to think along these lines by asking for output data. Where are our people going? What kinds of jobs are they doing? Are the tasks they are performing really the things we thought they ought to be doing? Which experience provided by our curriculum best prepares our graduates for the jobs they now do? The answers to these questions go a long way toward helping us evaluate our educational efforts.

We are at a crossroads in recreation education. We are actively working toward the establishment of a system of accreditation. Once that system is in effect it will serve as a stabilizer, a model to be used by all in the preparation of professionals. As much as I agree with the objectives of accreditation, I am concerned about the future. I would much prefer us to test our educational assumptions and models before we agree upon the standard. At present, the work by Peter Verhoven and Dennis Vinton in career education for the leisure occupations (HEW), the NRPA's national manpower study, the publication concerning programming (HEW), and our own national accreditation project are our best efforts in this critical area of professional thinking. But all are speculative, and none has been put to the "research" test.

Leisure Education

The Society of Park and Recreation Educators (SPRE) and the Florida State University are currently working toward implementation of a leisure education program which will have a strong evaluation/research component. Dr. Jean Mundy and her colleagues at Florida State have developed a model leisure education program which will be tested in three classes in an elementary school system in Florida. The proejct is so conceived that it will allow us to test the model and collect data to determine what is happening--to look at the process at work. Upon its completion, we can apply the findings and model to other academic situations to see if replication verifies their observations. All of these pieces, when assembled and compared, will give us a larger national picture. Fundamental to this approach is the standardization of their instrumentation, data collection techniques, and methodology.

Florida State's leisure education study is a longitudinal one; a more immediate feedback approach is possible by studying the types of recreation activities which have impact on such specific behavior as self-concept, learning, and motor performance. Doris Berryman is currently working on a conceptual model to analyze play and recreation activities to determine their impact in these areas. In a sense she is asking: Does knowledge about acitivites coupled with practice, change the play and recreation behaviors of people, and how do we best effect these changes? These are questions basic to the leisure education process.

In summary, I have tried to point out that there are some ongoing efforts in recreation research and that we have had some successes; however, they are very, very limited in comparison with the task we have before us. The majority of our studies have been descriptive, and we have rarely tested their validity or replicated them. We must come to grips with the realities of our field and its research potential and set for ourselves reasonable and meaningful research priorities.

We are all concerned about improving the quality of life and see the mission of parks and recreation as the developmet of programs which will assure a qualitative existence. Unfortunately, few of us have stopped to ask: Why are we doing what we are doing? How can we better measure our outcomes? Against what objectives?

Because we are an action-oriented field, it seems to me that if we are going to be successful in research, we must conduct those studies which will be consistent with our philosophy of service, the methods we use, and the public's expectations of our delivery system. This is where our real hope lies--not in experimental undertakings or longitudinal efforts at this time. Let the disciplines take care of some of those things for us; let us deal with these processes we know to be central to the problem of administering and programming a leisure service system.

Reactor: Gary M. Robb
Assistant Professor
Office of Recreation and Park Resources
University of Illinois, Champaign

Leisure education and personnel development directly impinge on the success or failure of any efforts directed toward the enhancement of options and opportunities for satisfying leisure involvement by the handicapped population. It is in this area that I will focus my attention.

Personnel development in therapeutic recreation is relatively new. Only a few years ago, fewer than 40 schools purported to provide an "option" in therapeutic recreation. Tom Stein's 1969 study (Therapeutic Recreation Journal, 2nd Quarter, 1970) of recreation and park curricula identified 35 programs offering such an option: 28 at the undergraduate level and 26 at the graduate level. In a 1970 update, Park and Hillman (TRJ, 2nd Quarter, 1970) identified 56 curricula which indicated some type of therapeutic recreation program at the two-year, four-year and/or graduate levels (Associate Level = 4; Bachelor's Level = 49; Master's Level = 24; Doctorate Level = 3).

In 1970-71, Fred Martin (TRJ, 3rd Quarter, 1971) identified 80 colleges and universities offering courses and/or fieldwork training in some aspect of therapeutic recreation service, including adapted physical education and recreation for special groups. In his study, Martin identified 15 two-year programs, 67 four-year programs, and 43 graduate opportunities for study in therapeutic recreation. Further, he determined the number and focus of course offerings: Over 200 courses were offered in the 80 curricula--89 were special focus courses and 69 were general or survey courses.

Lindley's 1969 survey (TRJ, 2nd Quarter, 1970) of therapeutic recreation curricula elicited responses from a panel of 30 expert therapeutic recreators concerning the relative importance of college courses in therapeutic recreation. A high correlation was achieved among the panelists on course offerings at both the undergraduate and graduate levels. One of Lindley's recommendations was to evaluate and analyze course content for those courses rated as highly desirable or desirable.

The "Directory of Professional Preparation Programs in Recreation, Parks and Related Fields," published by the NRPA and AAHPER in 1973, lists some 95 colleges/universities which ostensibly offer a therapeutic recreation option.

These studies certainly do not speak to the quality of professional preparation and personnel dvelopment programs. Only in the past few years has attention been focused upon what the components of a therapeutic recreation curriculum should be and, in fact, what competencies should be sought, taught, and/or learned in educational programs.

In 1971, the final report was published for a project funded by the U.S. Office of Education at New York University--Development of Educational Programs for New Careers in Recreation Services for the Disabled. This effort was one of the first, if not the first, to utilize pre- and post-testing of attitudes towards disabilities, knowledge of recreation activities, leadership methods, and recreation programming in connection with an educational program.

In December, 1972, the University of Kentucky, pursuant to a grant from the U.S. Office of Education, published Career Education for Leisure Occupations: Curriculum Guidelines for Recreation, Hospitality, and Tourism. Included were sample job titles, general description of work, basic employment requirements, and a list of goals and objectives applicable to therapeutic recreation personnel development.

In 1973, the NTRS Professional Education Committee updated the Index of Curricula in Therapeutic Recreation and compiled information on course content items at 25 additional colleges. This information, which is a critical first step in the qualitative assessment of professional preparation, has yet to be published.

The U.S. Office of Education recently published a booklet entitled, Leadership Preparation for Educators of Crippled Children and Other Health Impaired-Multiply Handicapped Populations. A list of goals and corresponding competencies to be demonstrated by prospective teachers is provided.

In February, 1973, the AAHPER, in cooperation with BEH, published Guidelines for Professional Preparation Programs for Personnel Involved in Physical Education and Recreation for the Handicapped. In it, competency guidelines, learning experiences, resources, and assessment techniques were formulated for therapeutic recreation.

The U.S. Office of Education is supporting numerous projects for the development of graduate programs in therapeutic recreation in universities around the country. As one example, Michigan State has developed a systems accountability model at the M.S. level, encompassing specific functions, competency and sub-competency statements and teaching-learning activities which should lead the student to the necessary performance objectives.

Dr. Linda Odum, Florida State University, recently completed a doctoral dissertation entitled, A Curricula Matrix for Use in the Design and Development of an Undergraduate Core Curriculum in Therapeutic Recreation. In her summary, Dr. Odum stated that the matrix may be employed as: (1) a basis for curriculum design, (2) evaluative criteria for existing curricula, (3) a device for competency-based testing for entry- and exit-level skills and/or knowledge, (4) a means of homogeneous groupings for courses on levels of attainment, and (5) an index to job levels.

These examples of recent efforts are an indicator of concern and commitment to prepare individuals to more adequately serve the handicapped. This, then, is the state of the art.

Obviously, a great deal more needs to be done as Dr. Sessoms suggested. The career lattice concept developed in the New York University project and the one outlined in the Kentucky project need to be realized. Perhaps the leisure education model developed in Florida (Mundy) is a beginning. The actual functions and tasks of positions at various levels of service delivery need to be further identified. By the same token, professional preparation programs should be clearly identified by competency level and focus. Perhaps, if positions in the therapeutic recreation field were awarded strictly on the basis of competency level, as opposed to educational level, a more realistic educational pattern would evolve. Were a person to be employed according to demonstrable competency, the formal degree structure would be dissipated in favor of competency attainment.

The initial need is to pull together materials that have been developed in the competency-based (C-B) curriculum area. A career lattice for therapeutic recreation should be constructed. The work at Michigan State (graduate level), Florida State (undergraduate level), and University of Illinois (community college level) may be reviewed along with the 750-hour training program (post high school level) and Cipriano's dissertation work at New York University as a foundation for this career lattice development.

Each of these programs has been concerned with C-B curriculum development; competencies have indeed been determined, but much refinement is required. Were this effort undertaken, the product might well provide the guidelines for a career lattice as well as a core for public leisure education programs. As a result of this combined effort, spinoffs for specialized research projects would be feasible: (1) manpower and job trend identification studies; (2) in-service training packets for parents, teachers, and others; (3) field testing of competencies; (4) case studies; and (5) traditional vs. new instructional methods.

We have at least begun to look at our educational models, and I am in agreement with Sessoms that much more needs to be done. Objectivity and verification must replace subjectivity and speculation. Future research must focus directly on the development of the career lattice concept through realistic competency-based position stratifications. To develop methodology and instruments that verify competency is no easy task, but it must be tackled. We must be able to effectively measure the quality of a field practicum experience; we need to measure student (worker) understanding of leisure counseling, activity analysis, client pathology, forces of motivation, and some of the more obscure and less tangible or seemingly less assessable competencies that are required to work effectively with clients. In connection with this, we need to develop innovative instructional resources and techniques to allow students to learn and acquire competencies most suitable to their style and ability. Resource libraries need to be developed and accompanied by a "Yellow Pages of Innovative Instructional Resources and Techniques."

Instructional evaluation must also be a primary concern. Both formative and summative evaluation methodology must be employed in relationship to learning, task, and concept analysis in order to accurately measure instructional effectiveness. "A Source Book For Instructional Development For Training Teachers of Exceptional Children" is now available as a joint publication of the Leadership Training Institute (University of MInnesota), The Center for Innovations in Teaching the Handicapped (Univeristy of Indiana), and The Council for Exceptional Children. This is an excellent publication and might well be a primary reference for the purposes of analysis, construction of criterion-referenced tests, media selection, mastery-learning formats, and other aspects.

9

Reactor: Thomas M. Vodola
Director, Research and Development
Township of Ocean School District, Oakhurst, New Jersey

Leisure time activity programs for the handicapped are being initiated throughout the country. The catalytic agents have been the implementation of state laws mandating "equal education for all," court precedents, vociferous agencies such as the Association for Children with Learning Disabilities, and concerned parents. However, despite the proliferation of programs, I am concerned because of the lack of sound guidelines for training personnel who are presently working with the handicapped and individuals who are in teacher training institutions preparing for careers in leisure education.

Concerns

Successful program implementation is contingent upon personnel who have been prepared with those skills, knowledges, and attitudes necessary to provide individualized programs designed to meet the needs of a diversified handicapped population.

A review of the research literature and existing leisure time programs has provoked the following concerns:

1. The lack of training programs at pre-service, in-service, and graduate levels.
2. The paucity of personnel training models.
3. The negativistic attitude of administrators, teachers, students, and the public-at-large.
4. The ramifications of the concept of "mainstreaming" the handicapped population.

Resolution of the Concerns

A survey should be conducted to identify the status of leisure time education programs. Of special importance are the exemplary facets of these programs. The survey results should be distributed nationally to stimulate programs in schools and agencies.

Research should be conducted to identify effective personnel training models. Emphasis should be placed on identifying those training prototypes which stress techniques and methods to insure individualization of instruction. The models identified should include pre-service, graduate and in-service training for recreation teachers of the handicapped; training programs for paraprofessionals; and sensitivity training programs for teachers, pupils, and the community-at-large. The models selected should include the following:

1. Teacher performance based on some form of accountability (e.g., competency-based performance).
2. Practicum training experiences for the teachers in a field-setting.
3. Individualized instructional programs for the handicapped populations, including corrective and adapted activities.

Research studies of these exemplary programs should be conducted to ascertain:

1. The skills, knowledges, and attitudes demonstrated by the teachers prior to and at the end of the training programs.
2. The skills, knowledges, and attitudes demonstrated by the handicapped population as a result of being exposed to a recreation program conducted by fully trained personnel.

Project Active Training Model

In an effort to clarify the type of training program recommended and the elements in the structuring process, the following guidelines are provided which have been established by Project ACTIVE: A Competency Based Training Program for Physical Education, Special Education, and Recreation Teachers of the Handicapped. (Thomas M. Vodola, Director, Project ACTIVE, ESEA, Title III, Project No. 74-341, Oakhurst, New Jersey 07755.)

1. Preliminary Steps
   - a. Identification of student behavioral changes desired.
   - b. Determination of the appropriate skills, knowledges, and attitudes needed by the teachers to effect said student behavioral changes.
2. Personnel Training Model
   - a. Trainee pre-test. The trainee to be pre-tested during the first session of the training program.
   - b. Lecture provided by the trainer. The presentation of the research/rationale supportive of the competency being taught.
   - c. Demonstration of the skill by the trainer. The master teacher demonstrates and explains the specific competency that is to be internalized.
   - d. Trainee application of the competency. The trainee is provided an opportunity to practice the specific skill.
   - e. Trainer-trainee discussion period. The trainee is provided an opportunity to discuss the problems encountered.

f. Trainee application of the competency in a field-setting. The trainee is provided an opportunity to teach the skill to a child in a practicum situation.

g. Trainer-trainee discussion period.. Trainer-trainee interaction to discuss the problems encountered and plausible alternative solutions.

h. Trainee reinforcement of competency. The trainee is provided ample opportunity to apply the skill to children with a variety of handicapping conditions.

i. Trainee post-test. The trainee is tested to assess his degree of acquisition of the competency. The test is administered when the trainee deems he is ready.

Reactor: Dennis A. Vinton
Head, Curriculum in Recreation and Parks
University of Kentucky, Lexington

Sessoms raises several questions about leisure counseling: (1) Is counseling a legitimate role for recreation/park specialists; (2) Is it a role that the public and professional experts used to assume; (3) Are we being equipped for the role; and (4) Who is equipping us?

To answer these questions, it is necessary to raise a number of additional questions. The first and most logical of these is, What is leisure counseling? I would guess that this question put to a randomly selected group of park and recreation professionals would result in some curious and disparate responses. This then points up the significance of Sessoms' comment that our concepts are not operationalized and, therefore, are not measurable. Neulinger (1974, p. 131) suggests that experimental research may be one answer to this problem in that ". . . an operational definition implies an experimental approach and that no science can progress or even exist without operational definitions."

The question of the legitimacy of park and recreation specialists serving in a counseling role raises questions of an ethical nature to which the profession should give serious consideration. What qualifications are needed to be classified as a "leisure counselor?" In what ways is leisure counseling unique in relation to other forms of counseling? What specific functions and tasks does the leisure counselor perform? What kind of education and training is necessary to successfully perform these functions and tasks? Can these questions not be articulated in the context of researchable problems?

There is also a need to demonstrate the effectiveness of leisure counseling as a tool to improve the human condition. If this cannot be done, there is no justification for its existence. This notion is supported by McKechnie (1974) writing in the Therapeutic Recreation Journal:

> . . . real progress will occur only to the extent that therapeutic recreation counseling employs empirically based multivariate techniques of appraisal that are demonstrated to predict validly and reliably the initial response and long-term adjustment of the individual client to a particular leisure or recreation solution.

A continuing controversy revolves around the issue or philosophical question of the nature and role of research in the leisure profession. On the one hand is the faction most frequently classified as the "practitioner" with the "academician" holding forth at the other end of the continuum. The rationale of the former group is that if research findings are not applicable to the solution of practical problems the research is not appropriate. Conversely, the latter group argues that the legitimate end product for research is theory which tends to explain a variety of phenomena and predict events. Is there not room and need for both kinds of research?

Another reality which must be faced is the fact that park and recreation professional preparation institutions are producing graduates who (1) do not possess knowledge and competencies necessary to conduct quality research or (2) do not possess the motivation and incentive to pursue research. In their article in the Therapeutic Recreation Journal, Linford and Kennedy (1971) support the first hypothesis stating:

> In our opinion there isn't anyone trained specifically in therapeutic recreation who has sufficient background in quantitative methods to guide any but the most simplistic doctoral dissertations. Similarly, the ability of university faculty to instigate and direct research studies which involve some of the more modern statistical designs is severely limited.

In terms of motivation, there is all too little within the university, aside from the incentive to achieve terminal degrees or to gain promotion. Unfortunately, this kind of motivation too often results in research designed to accommodate the biases of doctoral and graduate faculty committees, rather than to provide the kinds of data needed to solve problems confronting the profession.

Reinventing the wheel is another pitfall which the profession must learn to avoid, a point which Dr. Sessoms stressed. There is no doubt that leisure services are interrelated and interdependent with a number of other disciplines and professions, especially in the social and behavioral sciences. Consequently, it is vital that all systems be kept open to facilitate much needed communications with professionals in these related areas. Writing in the Journal of Leisure Research, Burdge (1974) pinpointed the problem when he stated:

> . . . the study of leisure faces an additional conflict due to the interdisciplinary nature of the topic. It is no news that academic people and the research community in general build disciplinary fences around any topic. Neat disciplines mean easy to approach, but often useless research.

I couldn't help but feel frustrated while Dr. Sessoms was talking about the difficulties he is encountering in achieving the kind of conditions that he set forth for us. I think we have a problem of research priorities. I don't believe research is necessarily held in low esteem. I do feel that research is a low priority in terms of our operational, day-to-day responsibilities.

Most of us at this conference are university people. We basically face the same type of considerations. Unfortunately, the motivation to conduct research and the priorities placed upon research lead us in directions which do not truly allow us to achieve the ultimate results we need to be concerned about. For instance, as I mentioned earlier, I think the conduct of most, or much, of the research in which many of us are involved is motivated more by the need to get the advanced degree, the need to achieve promotion or tenure, or the need to qualify for extramural funding than by the need to obtain the types of data required to advance us toward our ultimate goals. I think we are in a situation where we need to resist some of the institutional pressures that we are all subject to.

In terms of the utilization of research findings, I have great difficulty in processing the great amount of available information and data. I think we are not doing a very good job of articulating the results of our research in ways that can be useful to others, particularly to those at the program level. A few of us expend considerable effort to disseminate the results of our investigations; others of us might do a better job.

References

Burdge, Rabel J. 1974. "The State of Leisure Research." Journal of Leisure Research, Vol. 6, No. 4.

Linford, Anthony G. and Kennedy, D.W. 1971. "Research—The State of the Art in Therapeutic Recreation." Therapeutic Recreation Journal, Vol. V, No. 4.

McKechnie, George E. 1974. "Psychological Foundations of Leisure Counseling: An Empirical Strategy." Therapeutic Recreation Journal, Vol. VIII, No. 1.

Neulinger, John. 1974. The Psychology of Leisure. Springfield, Illinois: Charles C. Thomas Publishers.

APPENDIX B

1969 NEEDS ASSESSMENT: UNIVERSITY OF MARYLAND

In February 1969, the American Association for Health, Physical Education and Recreation and the National Recreation and Park Association sponsored "A Study Conference on Research and Demonstration Needs in Physical Education and Recreation for Handicapped Children" at the University of Maryland, College Park. The main purpose of the conference, funded by the Bureau of Education for the Handicapped, was to pinpoint immediate and future needs for research and demonstration projects. Six general statements resulting from the discussions pointed toward directions for investigation:

1. Development of comprehensive retrieval and dissemination procedures and systems to allow researchers and practitioners to fully utilize research findings and model practices.

2. Stimulation of relevant demonstration projects employing sound evaluation procedures.

3. Encouragement of better coordination between various agencies serving the handicapped population, including more cooperative efforts among physical education, recreation, and special education.

4. Conduct of a multi-dimensional analysis of underlying skill functions requisite for gratifying participation.

5. Placement of increased research and demonstration emphasis on programs to enable the handicapped person to prepare and maintain leisure skills and attitudes.

6. Increased research and demonstration efforts with regard to physical education and recreation as facilitators of learning.

Points 1, 3, 4, and 5 parallel some of the concerns which were emphasized by the participants of the September 1974 conference on leisure time activity at Columbia, Missouri. And point 5--increased emphasis on programs to enable the handicapped person to prepare and maintain leisure skills and attitudes--is one of the seeds for the 1974 conference.

At various places in the body of this report issues and concerns are discussed which parallel the recommendations emanating from the 1969 needs assessment conference. The recommendations for research and demonstration projects related to leisure time activity for handicapped populations formulated by conferees in 1974 are similar in many respects to those made five years before, although the latter were developed in a context considerably broader than leisure time.

It would be safe to assume on the basis of this comparison that research and demonstration needs are perceived similarly by educators, practitioners, and researchers in the broad context of physical education and recreation for handicapped children and in the more specific context of leisure time activity. It would also be safe to assume that recommendations reoccur over time because sufficient research has not been undertaken and/or adequately disseminated to the practitioner to satisfy the questions raised.

Personnel involved with the leisure patterns and participation of handicapped children are urged, therefore, to (1) consider the urgency of the points identified by the 1969 and 1974 conferences and to take steps to formulate appropriate projects and studies to answer pertinent questions and (2) seek more effective utilization of existing information systems as a means of expanding the dissemination of research findings and prototype models of education and service delivery.

Development of a data base is only half of the task facing the helping professions at the current time; the complementary dissemination/utilization pattern must exist if progress is to occur in serving the thousands of handicapped children and youth who require special help in meeting their needs for participation in leisure activities.

The editorial committee responsible for the proceedings of the 1969 conference grouped the recommendations within the categories of assessment and evaluation, interpretation, legislation, recruitment and training, and services. The following represents a synthesis of the recommendations relating to the concerns of the leisure activity project. (For full recommendations and conference papers, see Physical Education and Recreation for Handicapped Children: Proceedings of A Study Conference on Research and Demonstration Needs. Contract No. OEC-9-182704-2470(032). Washington, D.C.: American Association for Health, Physical Education and Recreation and National Recreation and Park Association, in cooperation with the Bureau of Education for the Handicapped, U.S. Department of Health, Education and Welfare.)

Education for Leisure

The following represent the complete list of recommendations pertaining to education for leisure.

- Ascertain and evaluate carryover of activities from physical education in the school setting to the community recreation setting, and carryover of childhood recreation skills into adulthood.

- Determine basic recreation and physical education skills needed by handicapped children.

- Evaluate relationships between leisure time skills and vocational-social-emotional adjustments of those with different handicapping conditions.

- Evaluate how handicapped children who receive vocational guidance use their leisure time.

- Determine how to counsel individuals to match activities with abilities and handicapping conditions with existing opportunities.

- Develop techniques and methods to assist individuals locate and use community resources.

- Devise methods and model programs to assist handicapped children to become recreationally independent and literate.

- Ascertain to what extent new skills are retained and incorporated into recreation patterns.

- Examine the recreation experience itself in terms of variables which influence activities and how they exert this influence; how these variables can be manipulated to alter the recreation experience to bring about behavioral change; and benefits and/or detrimental effects of specific recreation activities.

- Determine how the handicapped use their leisure time; provide programs to prepare them for active participation to a wide variety of recreation activities.

Assessment and Evaluation

Recommendations within this category were grouped under (1) contributions, values, and effects of participation, (2) design and rationale, (3) instrumentation, (4) standards, (5) methods and materials, (6) perceptual-motor considerations, (7) physiologically-based considerations, and (8) physical and social environment. The major areas for research and demonstration with relevance to leisure participation include:

- Effects of active participation in physical education and/or recreation programs and activities upon individual physical, mental, social, emotional, and ethical functioning.

- Participation in recreation and/or physical education programs and activities as one means for facilitating developmental learning tasks and learning in general; for promoting growth, development, and changes in behavior for persons with different handicapping conditions; for developing vocational readiness, competency, and productivity.

- Social acceptance of special students in institutions in which they are found.

- Attitudes of teachers, administrators, parents, and lay public toward children with various handicapping conditions.

- Knowledge, skills, competencies, and personality characteristics requisite for success in dealing with handicapped children in physical education and/or recreation programs.

- Architectural barriers and their elimination.

- Diagnostic/evaluative tools appropriate to physical education and/or recreation to measure physical, intellectual, social, emotional, and ethical existing/potential functioning at all levels of performance.

- Approaches to classifying handicapped and non-handicapped students for participation in physical education and recreation programs.

- Instruments and procedures which can be used by practitioners and researchers.

- Effective methods to promote transfer and/or carryover from physical education and/or recreation activities to other situations, activities, and processes.

- Effects of motivation upon functioning and effective approaches to motivation with various handicapped groups at different age/functional levels.

- Materials, equipment, methods used in physical education and recreation programs.

- Similarities and differences of different intervention modalities and learning programs (e.g., Kephart, Getman, etc.) and effectiveness of each.

- Effects of stress on children with various handicapping conditions.

- Attitudes of handicapped groups toward institutions and society.

- Impact of physical environment upon programs and performance.

- Impact of different leadership styles and participants' perceptions of these styles.

Interpretation

Recommendations fell into (1) collecting, storing, and retrieving information and (2) disseminating information.

- Promotion of projects to meet current information needs, fill existing gaps, answer questions, and give necessary direction to program efforts and activities.

- Effective, efficient utilization of existing channels of communication.

- Development of new approaches to information disssemination.

Recruitment and Training

Three emphasis areas were identified: (1) recruitment, (2) preservice training, and (3) in-service training.

- Characteristics necessary for successful work with handicapped children.
- Training programs for subprofessionals, paraprofessionals, and professionals with undergraduate and graduate educations.

Services

The breakdown of recommendations in this category includes: (1) general, (2) administration leadership, (3) integrating handicapped and non-handicapped populations, (4) programming, (5) education for leisure, (6) services to parents, and (7) camping and outdoor education.

- Modifications of various social systems necessary to increase services--e.g., transportation, facilities, equipment, avocational guidance--to the handicapped person.
- Types of activities which provide a base for integrating handicapped and non-handicapped children.
- Relative merits (and weaknesses) of community programs for the handicapped population as compared with institutional programs.
- Conditions and approaches to activities which are most conducive to integrating handicapped and non-handicapped groups.
- Values and limitations of integrative and segregative participation to the handicapped and non-handicapped persons.
- Differences in lifestyles of individuals with various handicapping conditions and differences in lifestyles of handicapped and non-handicapped persons.
- Modifications required to accommodate the severely and profoundly retarded and multiply-handicapped persons.
- Development and utilization of a multi-dimensional analysis of underlying skill functions needed as a requisite for gratifying participation in physical education and recreation activities.

APPENDIX C

GUIDELINES FOR PROPOSAL WRITING

Common Pitfalls in Proposals
Source: Federal Register,
Vol. 40, No. 35, p. 7414
Thursday, February 20, 1975

SEC. 3.3 *Common pitfalls in proposals.* A listing of the following commonly noted failings of proposals may be helpful to the prospective applicant:

(a) A failure to specify objectives of the study and relate them to the impact on education of handicapped children;

(b) A failure to specify the anticipated outcomes and products of the study related to the education of handicapped children. When improved scientific understanding is the intended outcome, attention should be directed toward avenues for translating this understanding to usable educational practices. (This is to say, journal articles alone may not be viewed as sufficient outcomes);

(c) A failure to relate the planned project to other published or recently completed work, including similarities, differences, and new contributions of the proposed project;

(d) A failure to outline the specific plans for conducting the project. Objectives, as well as planned procedures or strategies for achieving specificity and measurable results or objectives, procedures, and intended products or outcomes during the course of the planned project are often critical;

(e) A failure to utilize available expertise. Most university or geographic communities have available many individuals with skills in experimental design, test, and measurement, child development, etc., to name only a few specialties which frequently relate to proposals. Prospective applicants are urged to seek the best staff and consultants available, which frequently means pooling resources across department, organizational, or discipline lines;

(f) A failure to append assurances from facilities or schools whose cooperation is necessary for project success. For some activities, it is also appropriate to discuss plans and elicit feedback from the staff of the State Educational Agency;

(g) A failure to propose a realistic time frame for the planned project. If staff must be recruited, instruments designed, forms clearances obtained, etc., the project time schedule should take such activities into account. Although time extensions may be arranged in special circumstances, prospective applicants are advised to plan realistically. Particularly if time must be allowed for clearance of forms or for bureau review of documents, either other activities should be planned for those time periods, or staff should be temporarily assigned other duties;

(h) A failure to follow principles of good design. Most frequently overlooked are validity and reliability of collected data in surveys, test protocols, etc. Controls for experimenter's bias, Hawthorne and halo effects, and the issue of generalizing beyond the group of project participants often deserve attention. Appropriate statistical analyses do not necessarily require highly complex procedures. Levels of significance in statistical tests should not be violated by multiple reanalyzing of the same data. An appropriate ratio of subjects or respondents to variables under study should be planned;

(i) A failure to plan for evaluation of materials or procedures developed under the grant or contract. Although major development projects may require evaluation by an independent third party, the applicant usually outlines detailed procedures for evaluation of materials, curricula, or hardware devices. In some instances it may be appropriate to include both evaluation steps during product development and a final, overall evaluation procedure. When new procedures, curricula, materials, or other products are to be developed, the proposed evaluation should plan to obtain estimates of costs (including dollar amounts) and benefits expected to accrue if the product were placed in service.

(20 U.S.C. 1441, 1442; 45 CFR 100a.16, 100a.26, 121h.21)

APPENDIX D

LIST OF CONFERENCE PARTICIPANTS

Conference Participants

(*Conference Advisory Committee)

MELVILLE APPELL, Division of Innovation and Development, Bureau of Education for the Handicapped, Washington, D.C.

REUBEN ALTMAN, Department of Special Education, University of Missouri, Columbia, Missouri

VIKI ANNAND, National Recreation and Park Association, Arlington, Virginia

DAVID R. AUSTIN, Division of Recreation and Leisure Studies, North Texas State University, Denton, Texas

DORIS L. BERRYMAN, Department of Leisure Studies, New York University, New York, New York

ROBERT CIPRIANO, Department of Human Kinetics and Leisure Studies, The George Washington University, Washington, D.C.

*DAVID M. COMPTON, Recreation Education Program, University of Iowa, Iowa City, Iowa

WALTER COOPER, School of Health, Physical Education and Recreation, University of Southern Mississippi, Hattisburg, Mississippi

DOLORES GEDDES, Information and Research Utilization Center, American Association for Health, Physical Education and Recreation, Washington, D.C.

WILLIAM GRIGGS, Wyandotte Recreation Department, Wyandotte, Michigan

CATHY HALBERG, Office of Recreation and Park Resources, University of Illinois, Champaign, Illinois

DONALD E. HAWKINS, Department of Human Kinetics and Leisure Studies, The George Washington University, Washington, D.C.

GENE HAYES, Department of Recreation, University of Waterloo, Waterloo, Canada

*WILLIAM A. HILLMAN, Coordinator, Programs on Physical Education and Recreation, Bureau of Education for the Handicapped, Washington, D.C.

*JERRY HITZHUSEN, Department of Recreation and Park Administration, University of Missouri, Columbia, Missouri

ALAN HOFMEISTER, Exceptional Child Center, Utah State University, Logan, Utah

FRED HUMPHREY, Recreation and Leisure Studies Program, Temple University, Philadelphia, Pennsylvania

*LEON JOHNSON, Department of Physical Education, University of Missouri, Columbia, Missouri

*JERRY KELLEY, Office of Recreation and Park Resources, University of Illinois, Champaign, Illinois

DAN W. KENNEDY, Department of Health, Physical Education and Recreation, The Pennsylvania State University, University Park, Pennsylvania

JOHN LEWKO, Motor Performance and Play Research Laboratory, Children's Research Center, University of Illinois, Champaign, Illinois

RAINER MARTENS, Children's Research Center, University of Illinois, Champaign, Illinois

MAX MUELLER, Research Program Branch, U.S. Office of Education, Washington, D.C.

JOHN NESBITT, Recreation Education Program, University of Iowa, Iowa City, Iowa

T. J. NUGENT, Rehabilitation Education Center, University of Illinois, Champaign, Illinois

GERALD O'MORROW, School of Health, Physical Education and Recreation, Indiana State University, Terre Haute, Indiana

CAROL A. PETERSON, Department of Health, Physical Education and Recreation, Michigan State University, East Lansing, Michigan

RONALD REYNOLDS, Department of Parks, Recreation and Leisure, California State University, Chico, California

GARY ROBB, Office of Recreation and Park Resources, University of Illinois, Champaign, Illinois

JAMES RYAN, Recreation and Planning Section, Georgia State Department of Natural Resources, Atlanta, Georgia

*RICHARD C. SCHOFER, Department of Special Education, University of Missouri, Columbia, Missouri

WAYNE SENGSTOCK, Georgia State University, Atlanta, Georgia

H. DOUGLAS SESSOMS, Curriculum in Recreation Administration, University of North Carolina, Chapel Hill, North Carolina

CLAUDINE SHERRILL, Department of Health, Physical Education, and Recreation, Texas Women's University, Denton, Texas

MARIANN SOULEK, Department of Recreation, San Diego State University, San Diego, California

THOMAS A. STEIN, Program in Recreation Administration, University of North Carolina, Chapel Hill, North Carolina

MATTHEW SULLIVAN, Special School District, Town and Country, Missouri

RICHARD SWITZER, Human Resources School, Albertson, Long Island, New York

JEAN TAGUE, Department of Recreation, California State University, Northridge, California

GARY THOMPSON, Parks and Recreation Department, Columbia, Missouri

DENNIS VINTON, Curriculum in Recreation and Parks, University of Kentucky, Lexington, Kentucky

THOMAS VODOLA, Township of Ocean School District, Oakhurst, New Jersey